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THE EFFECT OF MOBILIZATION ON RETENTION OF ENLISTED RESERVISTS AFTER OPERATION DESERT SHIELD/STORM

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PREFACE

Operation Desert Shield/Storm (ODS/S) was the first major mobilization of reserve forces in 40 years, and the first since the advent of the All-Volunteer Force in 1973. Since then, reservists have participated in almost every major military operation including those in Somalia, Haiti, and Bosnia. This participation indicates the greater reliance on reserve forces in the post-drawdown environment. Reservists will likely be used in almost every major future military action.

This greater reliance on reserve forces makes it important to determine how reserve mobilizations affect the attitudes, perceptions, and behaviors of reservists, their families, and their employers. The increased use of reservists could change attitudes and behaviors so significantly that changes may be required in relevant personnel and training policies. This report is the second to focus on these issues. The first, MR-812-OSD, *Costs and Benefits of Reserve Participation: New Evidence from the 1992 Reserve Components Survey*, examined whether key attitudes and perceptions of reservists and the level of support they receive from their civilian employers and families have changed in significant ways. Although that report focused on both enlisted personnel and officers, this report focuses exclusively on enlisted personnel and their post-ODS/S retention behavior. Its main objective is to understand whether mobilization during ODS/S appeared to have an effect on retention of reservists. The information provided in these two reports is important in determining whether new or stronger policies are needed to protect reservists during periods of mobilization and in foreshadowing potential problems that might be associated with a policy of increased reserve use. These

two reports are part of a larger, ongoing project that aims to understand the effect of increased use of the reserve forces on reservists, their family and work environments, and their likelihood of remaining in the reserves through interviews and surveys of reservists involved in more recent deployments.

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Since Operation Desert Shield/Storm (ODS/S), the reserve forces have participated in almost every large foreign deployment: For instance, Reserve Component members were activated or volunteered to support Operation Restore Democracy (Haiti), Provide Promise and Deny Flight (Bosnia), Restore Hope (Somalia), Southern Watch (Southern Iraq), and Provide Comfort (Northern Iraq). With the drawdown of the active force, the reserves will continue to be an integral part of any military response. Thus, understanding how mobilizations/deployments of reservists affect their attitudes and those of their families and employers is important because of the potential effects on retention, future recruiting, and the eventual reshaping of the reserve force in perhaps unforeseen ways. Unfortunately, because there was little experience before ODS/S in mobilizing reservists, there is little empirical research concerning the effects of mobilizations on reservists' attitudes and those of their employers and families. This report, with its focus on enlisted retention behavior in the wake of ODS/S, is an attempt to fill that gap.

It should be emphasized that the effects of mobilization can potentially be either positive or negative. The experience of being mobilized may well enhance unit cohesion and foster a sense of pride and belonging that may prove invaluable in enhancing readiness and in increasing retention. However, this effect is likely to depend heavily on the circumstances, length, and frequency of mobilization. So our results for ODS/S reported here may not be generalizable to conflicts and mobilizations with different characteristics and it is important to be aware of the limitations of this analysis.

This report examines retention of enlisted reservists in the post-ODS/S environment, using a rich array of data available on the 1991 Guard/Reserve Survey of Officers and Enlisted Personnel. The analysis had three main objectives:

- The first was to examine whether and how factors affecting reenlistment had changed since 1986, the last large-scale survey of Reserve Components.

- The second objective of the study was to examine differences between the behavior of mobilized and nonmobilized enlisted reservists to see whether mobilization itself had an effect on retention.

- The third objective was to use the rich, experiential data collected from mobilized reservists regarding the effects of mobilization on their work and family environments and on their economic positions to see whether these had significant effects on retention.

DATA

The data for this study are drawn from two sources: (a) The 1991 Guard/Reserve Survey of Officers and Enlisted Personnel, and (b) Quarterly Master Personnel Files drawn from the Reserve Common Component Personnel Data System (RCCPDS) maintained by the Defense Manpower Data Center. Individual records were matched against the RCCPDS records to obtain a longitudinal history of each respondent for three years after the survey period (through the end of September 1994).

Because our primary interest is in first-term and mid-career retention, our analysis sample consists of 3,269 part-time enlisted reservists with 4–12 years of service (at the time of the survey), tracked forward to the end of September 1994. This sample consists of 1,752 mobilized and 1,517 nonmobilized reservists. The dependent variable is a dummy variable, defined to be equal to 1 if the reservist remained in the Selected Reserve as of September 1994 (either as a part-timer, a full-time Active Guard/Reserve member (AGR), or a military technician), 0 otherwise.

RESULTS

We examined overall differences in retention among various subgroups and also estimated the net effect of different variables on the probability of retention. Separate models were created for those with 4–6 years of service and those with 7–12 years of service because the factors affecting the retention decision are likely to be different for the two groups.

Service-Related Variables

The characteristic of most interest is mobilization status, the focus of the analysis. If mobilization has an adverse effect on certain groups, this may suggest a need for policies to help alleviate or mitigate immediate or potential problems in retention or recruiting. This would be particularly important if these groups have a higher than normal likelihood of being deployed in future military actions. On the other hand, mobilization could well have a favorable effect on retention if reservists feel they are getting a chance to display both their training and their patriotism in tangible ways.

The overall retention rates for mobilized and nonmobilized reservists are 55.1 percent and 59.9 percent, respectively. Although mobilized reservists do have a 5 percent lower retention rate, the difference is marginally insignificant. In the models, we find that mobilization status has little effect on the probability of retention.

Another concern that surfaced during ODS/S was the effect of mobilization on the retention of medical personnel. Admittedly this concern was primarily directed at officers but we felt it would be instructive to examine retention in enlisted medical and nonmedical occupations. We find no statistical difference in retention of medical and nonmedical personnel, either in the bivariate or the multivariate analyses.

Mirroring what we found in the earlier study, paygrade and component have a significant effect on retention probabilities. Lower paygrades have much lower retention; this is not surprising, given that it probably reflects performance ratings and fewer promotions. The differences among components are large and significant, with the Naval Reserve and Marine Corps Reserve having the lowest retention

rates and the two Air components the highest. This is likely due to differences in mission, structure, and experience mix in the different components as well as to other inherent differences in the components themselves. For example, the Air National Guard and the Air Force Reserve tend to have the highest mix of senior, experienced individuals making later retention decisions, whereas the Marine Corps Reserve has more junior personnel who are making first-term reenlistment decisions when reenlistment rates tend to be quite low. In addition, the Marine Corps Reserve has a philosophy of maintaining a youthful, vigorous force that discourages high retention at the first-term reenlistment point. The overall component differences between mobilized and nonmobilized groups are small and statistically insignificant.

The likelihood of being called up has a small and *positive* effect on retention. This result, combined with the fact that mobilization itself had little effect on retention, suggests that reservists appreciate a chance to use their skills and training, and the likelihood of being given a chance to do so increases retention. An important unanswered question, however, is whether reservists who are called up frequently and for shorter periods of time for deployments that are not as popular as the Gulf War will continue to remain as positive as this survey suggests. New evidence on this may be forthcoming from the various surveys being fielded by the Army and from a proposed RAND survey of Army reservists and guardsmen returning from Bosnia.

Previous research has shown that satisfaction with reserve participation is highly correlated with intention to stay. As shown in Figure S.1, in terms of overall retention, reservists with higher levels of satisfaction have significantly higher retention rates. Sixty to 70 percent of those who were very satisfied with the reserve are still in the reserve three years later, compared to only one-quarter to one-third of those who were very dissatisfied. In our models, satisfaction with reserve participation (not included in the earlier study) is the most important predictor of the likelihood of remaining in the reserves; those who are very satisfied with the reserves have retention probabilities that are one-and-a-half to two times as large as the probabilities of those who are very dissatisfied with the reserves.

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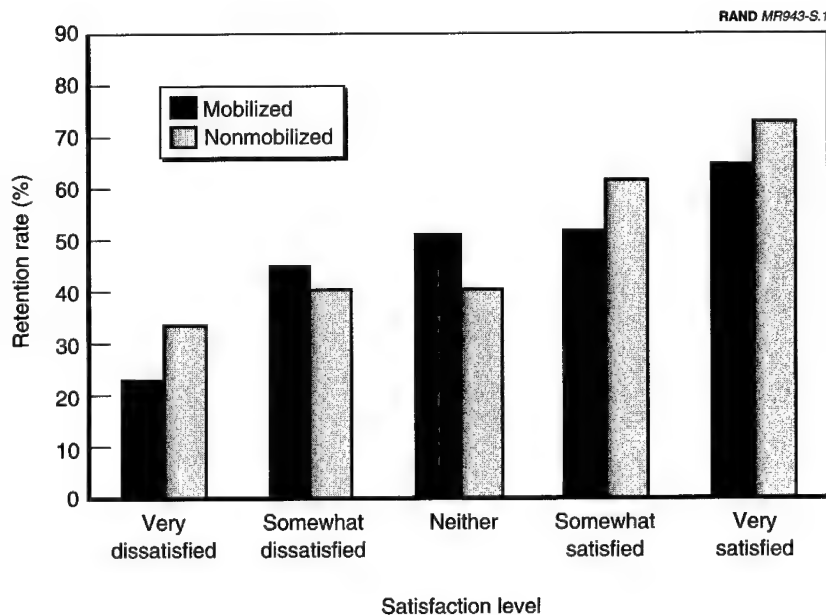
Figure S.1—Retention Rates, by Satisfaction with Participation in Reserves

About one in five young married enlisted personnel reported having spouses with unfavorable attitudes; this was true of only one in ten of the more experienced reservists. The marked drop in unfavorable attitude between the two year-of-service (YOS) groups is probably due to self-selection. Mobilized reservists appear to have higher levels of unfavorable spouse attitudes, although we find the difference between the two to be statistically insignificant.

That spouse attitude has a significant and large effect on retention is borne out by Figure S.2. Nonmobilized reservists who perceive that their spouses have a very unfavorable attitude have a retention rate of 37 percent; the retention rate among those with spouses who are very supportive is about twice that: 73 percent. Similar patterns are found among mobilized reservists. The difference in retention between mobilized and nonmobilized reservists with very favorable spouse attitudes (62 percent compared to 73 percent) is statistically significant.

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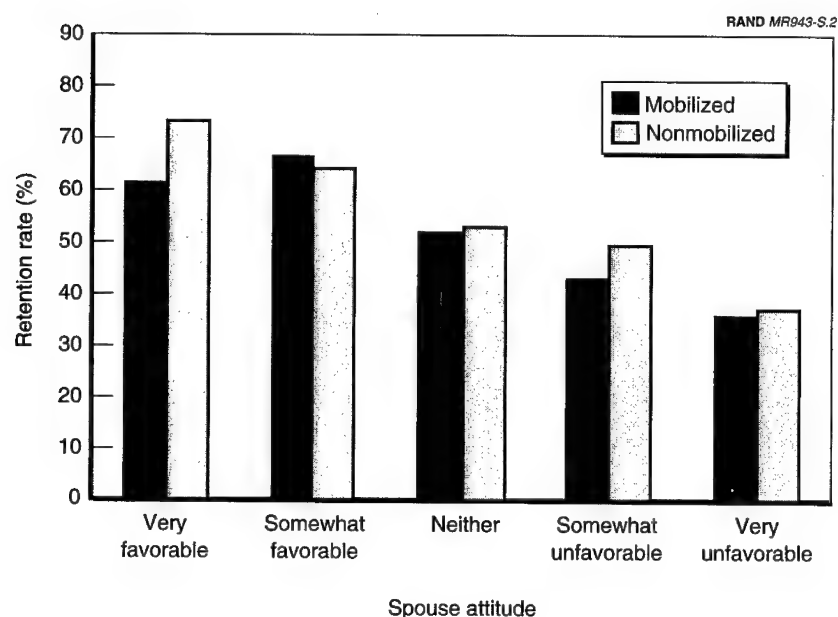
Figure S.2—Retention Rates, by Perceived Attitude of Spouse

Reinforcing these bivariate results, the multivariate models show that negative spouse attitudes have a large and highly negative effect on the probability of retention. There is clearly some correlation between the reservist's own satisfaction with reserve participation and his or her spouse's attitude toward the reserves; the latter probably influences the former to some degree and vice versa. However, the fact that the multivariate results show an independent effect of spouse attitude on retention suggests that we are measuring an additional dimension with this variable.

Unlike the earlier study's findings, this study finds that retention probabilities were the *highest* among those with supervisors with very unfavorable attitudes; we hypothesize that this may be because of the length of time between the reported attitude and the retention decision. Individuals may have changed jobs or supervisors; in addition, the reserves have been aggressively seeking to redress civilian employer-reservist conflicts and educating employers about their legal obligations to support reservists.

Demographic and Civilian Work-Related Variables

Similar to what other research has found, our study finds that blacks are much more likely to stay in the reserves, even after controlling for other factors, than their white counterparts and age has a small and positive effect on retention. Working for the government appears to increase retention but the effect of being self-employed is different across the two models: lower retention among the less experienced reservists and higher retention among the more experienced reservists.

Analysis of Mobilized Reservists

The 1991 survey was particularly aimed at mobilized reservists and at gathering information regarding their mobilization and post-mobilization experiences. We used these data to examine the effect of economic loss, family problems, and military experience on retention.

Slightly more than half of the mobilized reservists did not experience any income loss; a little less than a third lost $1–$4,999 in income; about 15 percent had losses of $5,000 or more. In addition to lost income, reservists faced additional expenses because of mobilization. The extent of this problem is far greater than the extent of income loss during mobilization. About three-quarters of mobilized reservists incurred additional expenses and about half had expenses of $1–$2,499. A little more than a quarter had expenses of $2,500 or more.

Income losses and additional expenses could be expected to have an effect on retention of returning reservists. The simple bivariate tabulations of the extent of these losses and subsequent retention show some decline in retention as losses become larger (Figures S.3–S.4). Because of small sample sizes, we combined the groups reporting income losses or additional expenses of $5,000 or more. As is clear from the figures, retention rates are lower among those reporting larger losses (with one exception), but the differences are not statistically significant. For example, the retention rate is 58 percent among those with no income loss or no additional expenses and 50 percent among those with income losses or additional expenses of $2,500 or higher. Figure S.4 shows a small puzzling upturn in retention among

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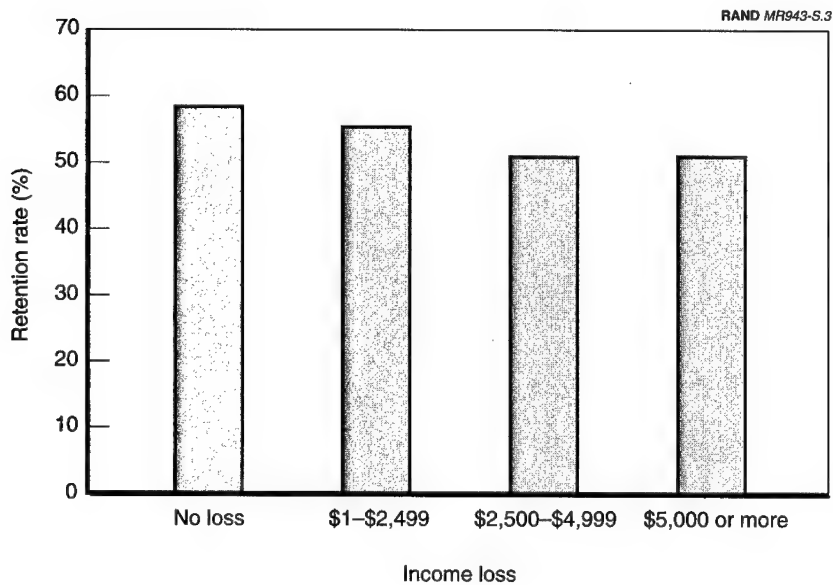
Figure S.3—Retention Rates, by Income Loss Resulting from Mobilization:
Mobilized Reservists

those with the highest additional expenses of $5,000 or more, which
is hard to explain. It would have been useful to know the reason for
these additional expenses to judge the credibility of these data.

We explicitly modeled the effect of these and other mobilization-
related experience variables on the probability of retention. These
included whether individuals experienced increased family prob-
lems, loss of promotion opportunity, damage to business, or loss of
civilian health benefits; whether individuals served within or outside
the continental United States (CONUS); whether they worked in their
primary occupation during the mobilization; whether they experi-
enced problems with their military pay; and whether they felt valued
by their active duty counterparts.

The addition of the mobilization variables essentially did not add any
explanatory power to the model and it did not change the direction

RAND *MR943-S.4*
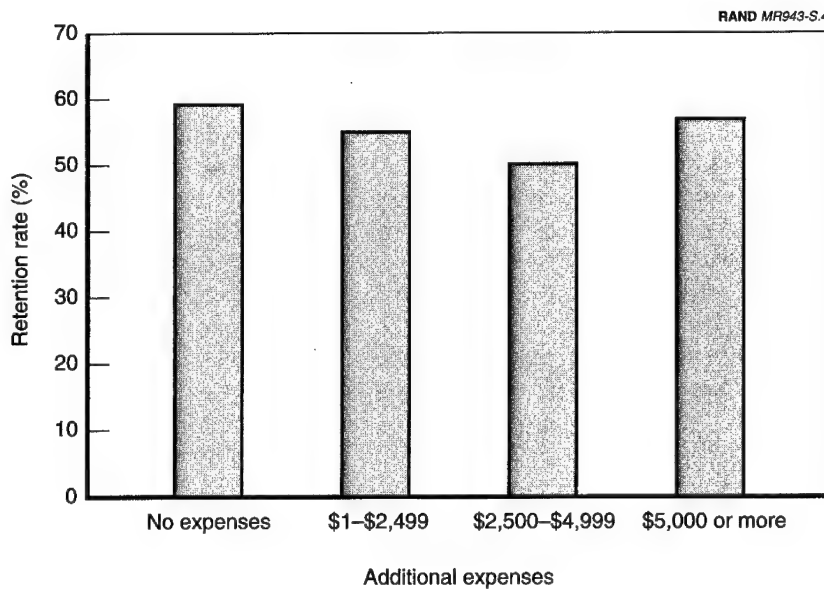
Figure S.4—Retention Rates, by Additional Expenses Resulting from Mobilization: Mobilized Reservists

or significance of the earlier results.[1] In particular, the economic loss variables were not significant in the model. We find that among the more experienced reservists, those who reported increased family problems in the wake of mobilization had a significantly lower probability of retention than the typical reservist (0.56 compared to 0.70). In the 4–6 YOS model, only the loss of civilian health benefits is significantly related to retention but the effect is in the opposite direction than what would have been expected.

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[1] A log-likelihood ratio test was used to compare the model with the mobilization variables with the basic model (Hosmer and Lemeshow, 1989). The test has a chi-square distribution where the null hypothesis is that the additional variables have coefficients equal to zero. For both the 4–6 and 7–12 YOS models, the conclusion is that the additional variables do not improve the model.

CONCLUSIONS

This analysis has provided convincing evidence that being mobilized during ODS/S did not appear to have adversely affected retention. Overall, mobilized reservists had slightly lower retention than non-mobilized reservists, but the difference was not statistically significant, nor was the net effect of being mobilized significant in the regression models. In addition, some evidence suggests that the probability of being mobilized in future call-ups has a small and positive effect on retention, suggesting that reservists welcome the opportunity to put their skills and training into practice in real-world deployments. Reported income loss and additional expenses attendant on being mobilized also did not have any effect on retention. Therefore, one can be cautiously optimistic that mobilizing the reserves under similar circumstances in the future will not have adverse effects on recruiting and retention.

However, several caveats need to be kept in mind. This study analyzed the effects of a large-scale, popular mobilization—one that enjoyed a high degree of support from employers and families. The effects of future mobilizations are likely to depend on the mission, the length of time that reservists are deployed, and the frequency with which they are called upon to serve. Frequent, small-scale, and perhaps unpopular deployments may have different and perhaps adverse effects on retention. The increasing personnel and operations tempo experienced by the reserve forces in recent months needs to be carefully monitored to mitigate possible adverse consequences on reservists, their families, and their employers and on future recruiting and retention. Careful and advance planning, early notice to reservists and employers regarding the timing and length of deployment to the extent possible, shorter rotations,[2] and efforts to involve families and employers in reserve activities by reserve units and to show greater appreciation to them may be of considerable help in this direction.

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[2]Some early evidence from interviews with reservists from the Air Reserve Components suggests that rotations of two to three weeks are manageable and cause the least disruption. These interviews are being conducted as part of the larger project.

ACKNOWLEDGMENTS

ACRONYMS

AFR	Air Force Reserve
AGR	Active Guard/Reserve
ANG	Air National Guard
ARNG	Army National Guard
DoD	Department of Defense
ETS	Enlisted Term of Service
GAO	General Accounting Office
IQR	Interquartile Range
MCR	Marine Corps Reserve
MOS	Military Occupational Specialty
NR	Naval Reserve
ODS/S	Operation Desert Shield/Storm
RCCPDS	Reserve Common Component Personnel Data System
USAR	United States Army Reserve
YOS	Years of Service

INTRODUCTION

The last six years have seen a marked increase in the use of reserve forces in military operations. Operation Desert Shield/Storm (ODS/S) saw the first major mobilization of the reserve forces since Korea; more than 250,000 reservists were mobilized during the six-month conflict. The drawdown of active forces since ODS/S has placed even more reliance on reserve forces.[1] This reliance is evidenced by reserve participation in every major foreign deployment since ODS/S. For instance, since 1994, Reserve Component members were activated or volunteered to support Operation Restore Democracy (Haiti), Provide Promise and Deny Flight (Bosnia), Restore Hope (Somalia), Southern Watch (Southern Iraq), and Provide Comfort (Northern Iraq).[2]

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[1]On April 7, 1995, Secretary of Defense William Perry, in a memorandum to the services and the Joint Chiefs of Staff, outlined the need for increased use of reserve forces in Total Force missions:

> As the Armed Forces of the U.S. are being drawn down in accordance with our National Security Strategy, we continue to ask the Active components to meet increasingly demanding operational requirements. We need to better leverage our National Guard and Reserve forces, which are well qualified and capable of performing some of these missions. In the Cold War, the emphasis for the Active components was on fulfilling operational requirements, and the focus for the Reserve components was on training for mobilization. We need to re-orient our thinking and plan to capitalize on Reserve component capabilities to accomplish operational requirements while maintaining their mission readiness for overseas and domestic operations . . . .

> Increased reliance on the Reserve components is prudent and necessary in future policy, planning, and budget decisions.

[2]For example, the Army has used reserve chaplains, contract and environmental law specialists, automation specialists, biotechnology experts, pathologists, and marketing

Understanding how mobilizations/deployments of reservists affect their attitudes and those of their families and employers is important for at least two reasons. First, defense policy in the post-Cold War, post-drawdown era has increased reliance on reserve forces, and practically any overseas involvement—from small scale to large scale—will involve reserve forces. Since there was little experience before ODS/S in mobilizing reservists, there is little empirical research concerning what effects mobilizations have on reservists' attitudes and those of their employers and families. Second, as our earlier research on enlisted reservists has shown (Grissmer, Kirby, and Sze, 1992), reservists' decisions to stay in the reserve depend critically on their own attitudes and perceptions and those of employers and families. If mobilization—or the increased likelihood of being mobilized—changes these attitudes, then retention patterns may change and this will have a significant effect on the type and characteristics of people in the reserve. In addition, willingness to join the reserve may also be affected, leading to a gradual reshaping of the force, perhaps in ways unforeseen by manpower planners. This report focuses on enlisted retention behavior in the wake of ODS/S and attempts to measure the effect of mobilization on retention.

It should be emphasized that the effects of mobilization can potentially be either positive or negative. The experience of being mobilized may well enhance unit cohesion and foster a sense of pride and belonging that may prove invaluable in enhancing readiness. A popular mobilization, such as ODS/S, may increase family and employer support and so increase retention; however, this effect is likely to depend heavily on the circumstances, length, and frequency of mobilization. So our results for ODS/S reported here may not be generalizable to conflicts and mobilizations with different characteristics and it is important to be aware of the limitations of the analysis.

The larger project, of which this analysis forms a part, aims to understand the effect of increased use of the reserve forces on reservists, their family and civilian work environments, and their likeli-

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and media relations experts on a variety of occasions; the Navy has used reservists for dental support at active facilities, telecommunications support, and scientific and technical research, and legal assistance; the Air Force employs reservists to provide intelligence, medical, legal, engineer, and public affairs support.

hood of remaining in the reserves through interviews and surveys of reservists involved in recent deployments. This report examines the retention of enlisted reservists in the post-ODS/S environment, using a rich array of data available on the 1991 Guard/Reserve Survey of Officers and Enlisted Personnel (described below). The analysis had three main objectives:

- The first was to examine whether and how factors affecting enlisted reenlistment had changed over time. In particular, we were interested in comparing the results of the previous model of reenlistment (Grissmer, Kirby, and Sze, 1992), which was fit to the 1986 survey data, with those of the current analysis.

- The second objective of the study was to examine differences between the behavior of mobilized and nonmobilized enlisted personnel to see whether mobilization had an effect on retention.

- The third objective was to use the rich, experiential data collected from mobilized reservists regarding the effects of mobilization on their work and family environments and on their economic positions to see whether these had significant effects on retention.

One serious limitation of our analysis needs to be made clear at the outset. The 1986 model referred to above analyzed first-term and mid-career reservists (those with 4–12 years of service) facing reenlistment decisions at the end of their obligated enlisted term of service (ETS).[3] Unfortunately, in the current analysis, we were not able to observe the reenlistment decision directly because the ETS variable was not available on the file and attempts to construct it from the survey data met with little success because of missing or out-of-range responses. As a result, we examine *retention* of individuals with 4–12 years of service at the time of the survey over a three-year period. This is done by matching the survey data with quarterly master personnel records through the end of September 1994 to see who stayed in the reserves. These retention decisions include both con-

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[3]Most nonprior-service reservists enlist for a six-year term; most prior-service reservists sign up for a one- or two-year term. Our data encompass reservists with 4–12 years of service in 1991 making decisions to continue in the Reserve Components over the following three-year period.

tinuation and reenlistment decisions among those making first-term and mid-career decisions, but given the long period under study, it is clear that the majority of individuals in these year-of-service groups would have reached decision points to stay or leave the reserves some time during this period. Despite this difference between the two models, it is interesting and instructive to compare our results with those from the 1986 survey data.

The results presented here can aid policymakers in understanding the effect that a large-scale mobilization like ODS/S has had on retention. We caution that these results cannot be generalized to smaller, less popular activations or to infer what would be the result of more frequent use of the reserves. Current work under way at RAND will help answer these questions. However, this report along with the first report (Kirby et al., 1997), which focused on attitudes, perceptions, and experiences of reservists in 1992, will help provide a more complete picture of the effects of ODS/S on retention and the family and work environment of reservists and highlight whether new or stronger policies are needed to protect reservists (from income losses, loss of benefits, and employer or family problems) during periods of mobilization/activations.

DATA

The data for this study are drawn from two sources: (a) the 1991 Guard/Reserve Survey of Officers and Enlisted Personnel, and (b) Quarterly Master Personnel Files drawn from the Reserve Common Component Personnel Data System (RCCPDS) maintained by the Defense Manpower Data Center. Individual records were matched against the RCCPDS records to obtain a longitudinal history of each respondent for three years after the survey period (through the end of September 1994).

The 1991 survey was conducted during mid 1991 to early 1992. The survey population consisted of all reserve personnel who were in the Selected Reserve as of March 1991, stratified by Reserve Component, by officer/enlisted rank, by mobilized/nonmobilized status, and by military occupation (medical/nonmedical). Mobilized reservists, especially health-care professionals, were oversampled as there was a great deal of concern in the wake of ODS/S regarding their income losses and general experience during ODS/S. The stratified random

sample consisted of approximately 20,000 medical reservists and 20,000 nonmedical reservists, equally divided between mobilized and nonmobilized groups. These groups received different questionnaires (Form 1 and Form 2, respectively; see Appendix B). Unfortunately, the survey encountered technical difficulties during both the sampling and administrative phases of the survey, including misclassification of mobilization status and occupation, existence of duplicate records in the original database used for sample selection, wrong forms being completed by respondents. (See Wilson, 1995, for a more complete description of this and the weighting procedure used to correct for these problems.) The respondent sample consisted of a total of 11,559 completes for the medical sample and 12,072 completes for the nonmedical sample.

Because our primary interest is in first-term and mid-career enlisted retention, our analysis is limited to enlisted reservists with 4–12 years of service at the time of the survey. These reservists were then tracked forward through the end of FY94.

ORGANIZATION OF THE REPORT

Chapter Two outlines a theoretical framework for analyzing retention drawn from our previous study of reenlistment (Grissmer, Kirby, and Sze, 1992). It also provides a brief summary of previous literature on reserve retention/reenlistment. Chapter Three examines whether and how retention differs by service-related and demographic variables (including attitudinal variables that have been found to be important in prior research); it also examines whether there are differences between mobilized and nonmobilized reservists in the effects of these factors on retention and presents a profile of the analysis sample. Chapter Four presents the results of our multivariate models of retention in which we estimate the net effect of particular variables on retention—for example, being mobilized—holding other factors constant. Chapter Five focuses on mobilized reservists only; the rich array of experiential data obtained from the longer survey that was administered to mobilized reservists is examined to see whether such variables add to the explanatory power of the retention models. Conclusions are presented in Chapter Six.

THEORETICAL FRAMEWORK AND REVIEW OF PREVIOUS RESEARCH

THE DECISION TO PARTICIPATE IN THE RESERVE[1]

For most enlisted reservists, participation in the Selected Reserve is essentially a decision to hold two jobs. The conceptual framework that guides our empirical work has as its underpinning the traditional moonlighting labor market theory (Shiskho and Rostker, 1976). The fundamental tenet of this theory is that individuals or households make systematic assessments of the likely net monetary and nonmonetary benefits from moonlighting and make systematic decisions throughout their careers to enter, stay, or leave a moonlighting occupation. However, as we pointed out in Grissmer, Kirby, and Sze (1992), this theory offers only a limited perspective with which to analyze decisions to participate in the reserves, because the reserve job is unlike civilian moonlighting jobs. First, the reserve job requires that the individual participate full time in Initial Active Duty Training, Annual Training, or in training required for promotion or skill retraining. In addition, given the increased reliance on the reserves, the reserve job may recall the individual to active duty and require him to deploy full time for periods of time ranging from 2 weeks to 9 months. These full-time demands often conflict directly with civilian jobs and are likely to cause more conflicts with civilian employers than would more traditional civilian moonlighting jobs.

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[1]This section draws heavily from Grissmer, Kirby, and Sze (1992).

Second, there is little or no flexibility in the reserve work schedule; this lack of flexibility can play havoc with scheduled family events or with voluntary or mandated overtime opportunities at the civilian job.

Several positive aspects of the reserve job also set it apart from the more traditional part-time jobs in the civilian sector. First, the substantial training investment that the reserves are willing to provide for every reservist is equal to or surpasses the investment that most civilian employers make in their full-time staff. This training often has substantial civilian transferability. Second, the potential longevity and job security that the reserves provide to successful reservists is unmatched by most moonlighting jobs. Third, the presence of retirement benefits—almost never available in civilian moonlighting jobs—for reservists completing 20 years of satisfactory service is a potent draw for reservists with 10 or more years of service. These benefits are portable as the reservist moves from unit to unit or from one location to another, as long as he stays in the Selected Reserve. Fourth, and arguably most important, the reserve offers nonpecuniary benefits that appear to be highly valued by those considering the participation decision. High on this list is the sense of patriotism and dedication to one's country.

This framework and the model that we estimate emphasize the importance of these factors, both economic and noneconomic. One important caveat must be kept in mind. We treat all retention decisions as if they are decisions entirely at the discretion of the individual. This allows us to model the decision using the traditional utility framework, in which the individual weighs the costs and benefits (both monetary and nonmonetary) of reserve participation against other alternatives and chooses the most preferred alternative. However, the component has a great deal of discretion in deciding who stays and who leaves (particularly at the first-term reenlistment point); some components, like the Marine Corps Reserve, discourage high retention at this juncture. We do not have the data to sort out voluntary from involuntary quits; we necessarily treat all quits as

voluntary, and this is a weakness of our empirical model, particularly for first-termers.[2]

REVIEW OF RECENT RESEARCH ON RESERVE RETENTION

We limit this literature review to the more recent studies of reserve retention. For a review of the earlier literature, see Grissmer, Kirby, and Sze (1992).

O'Donohue (1988) used the 1986 Reserve Components Survey to examine first-term reenlistment among a sample of Marine Corps enlisted reservists. Reserve income had a positive and significant effect on retention among both prior and nonprior service reservists. Educational benefits, civilian job-related training, and retirement benefits were important in retaining prior service individuals.

Kocher and Thomas (1990) examined gender differences in retention among Army reservists in paygrades E-4 to E-5 using data from the 1986 Reserve Components Survey tracked forward through June 1989. Separate models were estimated for nonprior service and prior service and for men and women. The set of explanatory variables included demographic characteristics, paygrade, travel time to drill, full-time civilian jobs, importance of retirement benefits, and composite factors measuring income needs, intrinsic job characteristics,

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[2]The lack of distinction between voluntary and involuntary quits is particularly troublesome because our study falls in the time period when the reserves were drawing down in strength, although not to the extent that the active forces were. Reserve endstrength peaked in FY89 at nearly 1.2 million Selected Reserve members. By FY94, reserve endstrength had declined by 14.7 percent to a little less than 1 million. The Selected Reserve drawdown differentially affected the Reserve Components with the Naval Reserve being the hardest hit, with a decline of 30 percent compared to FY89 levels. The Army National Guard and the Army Reserve faced a reduction of 14 and 20 percent, respectively. The remaining three components had much smaller reductions in strength. However, examining the relative proportions of enlisted personnel by years of service provides some indication that the year-of-service groups that are the focus of our analysis were somewhat more insulated from involuntary quits. If we examine the distribution of enlisted personnel by years of service, we find that the percentage of those with 6–14 years of service (the group we are analyzing in the report would have between 7 and 15 years of service by FY94 if they continued in the reserves) increased from FY89 to FY94 (see Kirby and Buddin, 1996), suggesting that this group was not particularly targeted for reductions-in-force.

and drill activities. They found that retirement benefits are important to both male and female reservists. Women were influenced more by intrinsic job characteristics and family status, whereas men tended to be influenced by economic incentives. Family status affected the retention of men and women somewhat differently; among men, being married and having dependents increased retention; among married women, presence of children lowered retention. Characteristics of weekend drill activities play an important role in the retention of prior-service women. For men, age is positively related to retention.

Fugita and Lakhani (1991), Lakhani and Fugita (1993), and Lakhani (1995) examined the reenlistment intentions of reservists from the 1986 Reserve Components Survey.[3] Among enlisted personnel, spouse attitude, reserve earnings, and years of service have significant and positive effects on the probability of reenlistment; the beta coefficient for spouse attitude is almost double that for earnings. An increase in civilian income reduces the likelihood of reenlisting but is not statistically significant. Lakhani (1995) also found that an increase in job satisfaction (defined as an increase in time spent in occupations that matched the reservist's specialty training) had a positive effect on reenlistment among those in the Army Selected Reserve components. The authors suggest that money spent on programs aimed at improving spouse attitudes toward the reserves is likely to be more cost-effective than raising reserve pay levels.

General Accounting Office (GAO) (1991) looked at both prior-service and nonprior-service retention using data from FY88. Retention rates varied considerably by grade, component, and unit. GAO also used data from the 1986 Reserve Components Survey matched to master file records to examine some of the causes of attrition. Its analysis showed that more than two-thirds of the losses were reservists who at the time of the survey indicated that they had planned to stay in the military the following year, whereas only 16 percent of those who had planned to leave actually did so. In contrast to Lakhani (1995), GAO points to the "considerable divergence between intent and future actions" (p. 30). The primary finding of

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[3]They assert that intentions are well correlated with actual behavior, although both our earlier research and this analyis—as we show later in this chapter—found this relationship between intentions and behavior to be weak at best.

the GAO report is that specialty mismatches are strongly related to attrition as is reported loss of overtime opportunities. Some of the other factors, highlighted by unit visits, contributing to higher attrition were job conflicts, dissatisfaction with training and enlistment terms, and pay problems.

In one of a handful of studies that look at the effect of increased training requirements on retention, Geleta, Moll, Morstein, and Paska (1988) surveyed 3,000 Army National Guard (ARNG) personnel and found that besides rank, willingness to reenlist was related closely to satisfaction with the Guard and presence of strong family and employer support. About a third of soldiers who were likely to stay in the Guard reported that they would leave the service if their active duty training commitment increased significantly, because of the conflicts with family and employer obligations.

Hogan and Villa (1991) modeled reenlistment using data on a sample of reservists from the 1986 Reserve Components Survey who were facing a reenlistment decision between the time of the survey and end of FY87. They fit the model separately to three groups based on years of service; first-term, 7–9, and 10–11. Similar to other studies, they estimated a first-term pay elasticity of about 0.13. However, factors other than pay appeared to be important in reenlistment decisions of the more experienced groups. The authors suggest that reenlistment models need to incorporate noneconomic factors as explanatory variables to obtain unbiased and robust estimates.

Like Hogan and Villa (1991), Grissmer, Kirby, and Sze (1992) examined reenlistment decisions of early to mid-career reservists and the forces affecting those decisions using the 1986 Reserve Components Survey. Reservists were tracked forward to the end of FY87 and the analysis was limited to those with 4–12 years of service making ETS decisions. They argue that economic variables tend not to be the most important determinants of the decision to participate or to continue in the reserve; these variables are overshadowed by the importance of the attitudinal variables reflecting the degree of support received by the reservist from his spouse and employer. In addition, reenlistment rates vary in expected ways by grade and years of service.

Harris, Elig, and Oliver (1992) report on findings from the 1991 Survey of Mobilized Reservists, which surveyed 1,400 mobilized reservists (deployed both to and outside the Continental United States, excluding Southwest Asia). Reserve soldiers were quite positive about the mobilization experience but not as positive about their leaders or their treatment by the active component. Many soldiers lost benefits and income when they were mobilized, especially those employed by smaller organizations. Positive attitudes toward leaders and their behaviors tended to be fairly strongly related to retention intentions and morale.

RETENTION PATTERNS

This chapter examines the relationship between retention and a number of variables that previous literature has found to be important in the retention decision.

INTENTION TO REENLIST AND ACTUAL BEHAVIOR

Research on reserve reenlistment and retention often focuses on the individual's stated intention to reenlist (Fugita and Lakhani, 1991, Lakhani, 1995, and Lakhani and Fugita, 1993). We decided not to use the self-reported intention to reenlist because for our survey data, there appeared to be marked discrepancies between intention to reenlist and actual retention behavior (see also GAO, 1991).

The intentions question on the survey asked the reservists to estimate their probability of reenlisting on an 11-point scale, ranging from 0 to 10. The reservist was asked to rate his or her chance of reenlisting as 0 in 10, 1 in 10, 2 in 10, and so on; this could then be translated into a probability of reenlistment. Figure 3.1 compares this reenlistment probability with actual retention rates for each intentions group.[1] Although intentions and actual behavior are quite clearly correlated, for individuals with low reported probabilities of staying (between 0.2 and 0.5), the discrepancy between the subjective probability and the actual behavior is somewhat large. At the other end of the scale, individuals appeared to overestimate their

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[1]The 1992 study found the same discrepancy between reported intention and actual behavior (see Grissmer, Kirby, and Sze, 1992).

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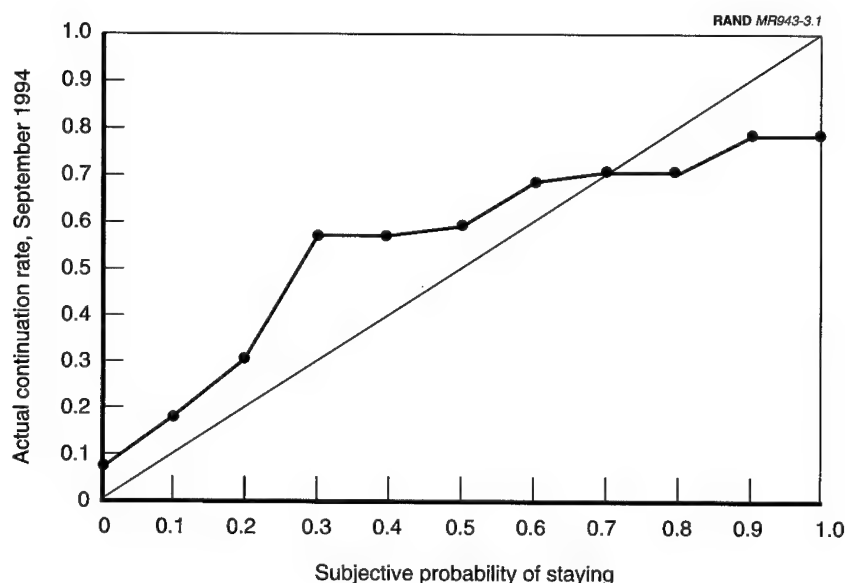
Figure 3.1—Comparing Intentions and Behavior

probability of staying. We can offer some reasons for this phenomenon:

- Given that we are examining retention decisions made between the time of the survey and up to three years later, it is likely that some of the factors negatively/positively influencing the intention to reenlist may have changed for the better/worse (employer or spouse conflicts, job changes, problems with the unit, etc.);

- The reserves may offer some effective intervention or counseling at the time the decision was made, so that individuals who were disgruntled were persuaded to stay;

- The data may reflect a "protest effect," where individuals with serious complaints against the system may underestimate their reenlistment probability; however, at the time of the retention decision, other, positive factors may outweigh the negative ones;

- Among those who were certain to stay, perhaps closure of units or early separation incentives may have forced the decision to leave.

Because of this discrepancy between intentions and behavior, our analysis focuses on the actual retention decision as evidenced in the RCCPDS, not the intention to stay measured by the survey.

To reiterate, the dependent variable in this analysis is whether the reservist is still in the Selected Reserve at the end of September 1994,[2] regardless of whether the reservist remained in part-time status or had transferred to become a full-time Active Guard/Reserve member or a military technician.[3]   For purposes of this report, we are adopting an enlisted-force perspective on retention: If the reservist remains in the Selected Reserve as an enlisted member, he or she is still a contributing member of the enlisted force, regardless of part-time/full-time status.

For most reservists, September 1994 is approximately three years after the survey date (the survey was primarily fielded in the summer and fall of 1991). As explained above, we did not have a valid ETS date and so could not limit the analysis to reenlistment decisions. We expect that the majority of the analysis sample—reservists with 4–12 years of service at the beginning of the study period—will reach the end of a term of service and face a reenlistment decision, either first-term or mid-career, during this time period.

ESTIMATED POPULATION CHARACTERISTICS

The sample selected for analysis consists of 3,269 part-time enlisted reservists with 4–12 years of service (at the time of the survey), tracked forward to the end of September 1994. This consists of 1,752

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[2]We also examined retention at the end of September 1992 and at the end of September 1993. There was not much difference in the relationships we observed in the data between retention at these points and at the end of September 1994. We chose the latter because it afforded us a longer time period of analysis and the highest probability that most of the reservists in the sample did make ETS decisions.

[3]If the reservist had received a commission, he would not be counted as part of the enlisted force and, therefore, would be counted as a leaver.

mobilized and 1,517 nonmobilized reservists.[4] Estimated population characteristics were derived by weighting the respondents in the analysis file to account for known population proportions of Reserve Component, officer/enlisted, mobilized/nonmobilized, and medical/nonmedical profession.[5] The estimated population characteristics are shown in Table 3.1.[6] Roughly 55 percent of mobilized and 60 percent of nonmobilized reservists in our analysis file were still in the reserve approximately three years later. The analysis samples consist mostly of E-4s and E-5s, who are predominantly male and white with a mean age of 30 years. Approximately half are married, a little less than half have no dependents, and most are high school graduates, although 14 to 20 percent have attended college. The proportion of those with no civilian job is unusually large in the analysis sample—18 percent—because it includes both those not in the labor force (retired, homemaker, in school, etc.) and those unemployed and looking for work. The 1992 survey showed much the same pattern with about 11 percent not in the labor force and 6 percent unemployed (Kirby et al., 1997).[7]

Some important differences exist between the mobilized and the nonmobilized population, especially with respect to component representation. There is a higher proportion of Army Reserve, Air Force Reserve, and Marine Corps Reserve members in the mobilized

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[4]Officers, who were oversampled, are excluded from this analysis. There were approximately 7,500 enlisted reservists in the respondent sample. Further exclusions—E-1s, those with less than 4 or more than 12 years of service, full-time reservists including military technicians, and Coast Guard members—reduced this sample size to 3,269, as shown above.

[5]See Wilson (1995) for a description of how the weights were derived.

[6]When we examined the weights, we found 202 cases that appeared to be extreme outliers; these weights lay outside the high outer fence of the box plot, defined as (third quartile + (3*Interquartile Range (IQR))). The outliers tend to be younger reservists, drawn primarily from the Army National Guard. We conducted all the analyses reported here in two ways: first by excluding all 202 cases from the analysis sample and second by trimming the weights of these cases to the value given by the high outer fence. There were small differences in the results of the two analyses; we, therefore, opted to include the 202 cases in the analysis sample with the trimmed weights, given that our sample size is not overly large. Because the weights are trimmed, any differences we find across components are likely biased and not generalizable to the overall population.

[7]The percentage with no job was lower in the 1986 survey (13 percent).

Table 3.1

**Estimated Population Characteristics for Mobilized and
Nonmobilized Reservists**

	Mobilized	Nonmobilized
Continued through September 1994	55.1	59.9
Paygrade		
E-3	4.2	5.4
E-4	41.6	39.2
E-5	41.4	40.4
E-6	11.5	13.1
E-7/E-9	1.3	1.8
Component		
Army National Guard	26.4	29.9
Army Reserve	31.7	28.6
Naval Reserve	10.2	19.3
Marine Corps Reserve	13.2	1.8
Air National Guard	6.0	13.4
Air Force Reserve	12.4	7.0
Reserve years of service		
4–6	46.6	44.9
7–12	53.4	55.1
Active years of service		
Less than 2	58.4	46.2
2–4	41.6	47.8
Military occupation		
General military	19.4	25.1
Technical	26.9	26.5
Administrative and clerical	14.3	17.0
Craftsmen	15.9	24.6
Service and supply	23.5	6.8
Demographics and civilian work		
Male	83.3	83.1
Female	16.7	16.9
White	67.7	73.6
Black	21.4	16.2
Hispanic	7.0	6.2
Other	3.8	4.0

Table 3.1 (continued)

	Mobilized	Nonmobilized
High school nongraduate	9.2	8.7
High school graduate	77.4	71.3
Some college	13.4	20.1
Not married	50.5	47.2
Married	49.5	52.8
No dependents	44.3	43.6
One dependent	25.2	21.0
Two or more dependents	30.5	35.4
Civilian job		
No job	18.5	17.6
Federal government	7.9	9.8
State government	8.4	8.1
Local government	8.2	7.7
Private firm	51.5	51.4
Self-employed	5.4	5.4
Average age (in years)	29.4	30.3

sample than in the nonmobilized sample and a higher proportion of those in service and supply occupations. The two groups are quite similar in terms of reserve experience (slightly less active experience in the mobilized group), gender, mean age, educational attainment, marital status, number of dependents, and civilian employer.

RETENTION RATES

A number of factors can be expected to affect retention according to our conceptual framework. The following section examines bivariate relationships between these factors and retention rates for reservists with 4–12 years of reserve service. The graphs shown here are based on weighted data (using the trimmed weights for the outlier cases).[8]

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[8]Although we carried out a number of statistical tests to see whether the differences we observed in retention among the various subgroups were signficant, two notes of caution must be kept in mind when examining the reported findings. First, we are looking only at the marginal distributions of two variables across the population. Relationships among variables could change because of aggregation, or the aggregation could be masking details because of confounding factors. This is exactly the

RETENTION RATES BY SERVICE-RELATED VARIABLES

The characteristic of most interest is mobilization status, because that forms the focus of the analysis. We are interested in differences in retention between the mobilized and nonmobilized groups to see whether being deployed has an effect on retention, either on the overall group, or on subgroups of reservists. If mobilization has an adverse effect on certain groups, this may suggest a need for policies to help alleviate or mitigate immediate or potential problems in retention or recruiting. A deployment effect on retention would be particularly important if these groups have a higher-than-normal likelihood of being deployed in future military actions. On the other hand, mobilization could well have a favorable effect on retention if reservists feel that they are getting a chance to display both their training and their patriotism in tangible ways.

As seen in Table 3.1, the retention rates for mobilized and nonmobilized reservists are 55.1 percent and 59.9 percent, respectively. Although mobilized reservists do have a lower retention rate (a difference of 5 percentage points), statistical tests suggest that this difference is marginally insignificant. The size of this difference and its lack of statistical significance suggest that initial fears that mobilized personnel would have *substantially* reduced retention following deployment because of the monetary and nonmonetary costs incurred by these reservists do not appear to be justified.

Another concern that surfaced during ODS/S was the effect of mobilization on retention of medical personnel. Although the concern was primarily directed at officers, we felt it might be instructive to see whether there were differences in retention among the enlisted medical and nonmedical occupations. Figure 3.2 shows the retention of medical and nonmedical personnel. Among the mobilized, medical personnel had a slightly higher retention rate; however, among the nonmobilized, medical personnel do have a lower retention rate than nonmedical personnel (a difference of about 6

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reason why a multivariate analysis is needed. Second, using a p-value of 0.05 for statistical significance means that there is still a 1 in 20 chance that the conclusion—that a significant difference exists—is false. For these reasons, although we present the bivariate relationships because we believe they are inherently interesting in themselves and occasionally report on the results of the statistical tests, we do not emphasize particular differences or the magnitude of the differences.
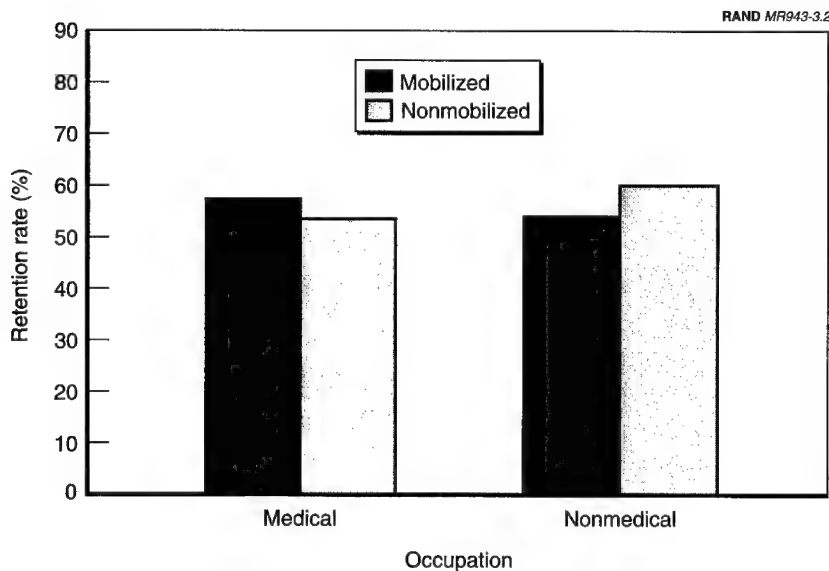
Figure 3.2—Retention Rates, by Medical/Nonmedical Occupation

percentage points). Overall, there is no statistical difference in retention of medical and nonmedical personnel.

Figures 3.3 and 3.4 display retention rates by paygrade and years of service. As expected, retention is higher among the more senior grades and among those with more years of service. The higher rates for more experienced, senior reservists are attributable to their much greater investment in reserve service, their promotion and advancement, and the increased value of retirement benefits. These groups also tend to have a higher taste for military service.

Overall, with one exception, there are no significant differences between mobilized and nonmobilized reservists in terms of retention. Statistical tests suggest that mobilized reservists in grade E-6 have a retention rate that is significantly lower than that of nonmobilized E-6s. The large difference in retention among the E-7 to E-9 group is not statistically significant because of small sample size, nor is the difference in retention among the E-3s. Among the year of service groups (Figure 3.4), statistical tests suggest that there is a
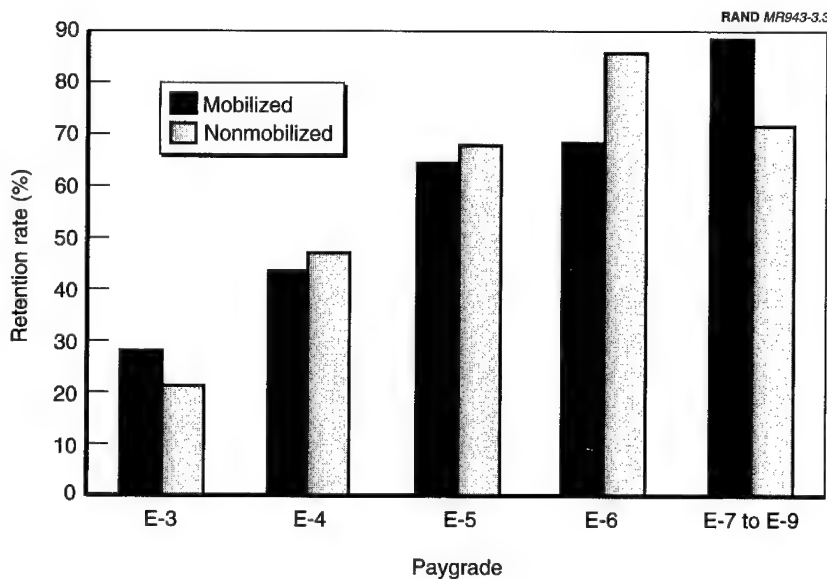
Figure 3.3—Retention Rates, by Paygrade

difference in the retention rate of mobilized reservists versus nonmobilized reservists in the 7–9 years of service group.

Retention rates vary considerably by component, as shown in Figure 3.5. Because of the high nonresponse rate for the ARNG and our subsequent use of the trimmed weights, these comparisons must be used with caution. The retention rate varies from the mid 20 percent range for the Marine Corps to 80 percent for the Air National Guard. This variance is likely due to differences in mission, structure, and experience mix in the different components, as well as of other inherent differences in the components themselves. For example, the Air National Guard and the Air Force Reserve tend to have the highest mix of senior, experienced individuals making later retention decisions, whereas the Marine Corps Reserve has more junior personnel who are making first-term reenlistment decisions when reenlistment rates tend to be quite low. In addition, the Marine Corps Reserve has a philosophy of maintaining a youthful, vigorous force that discourages high retention at the first-term reenlistment
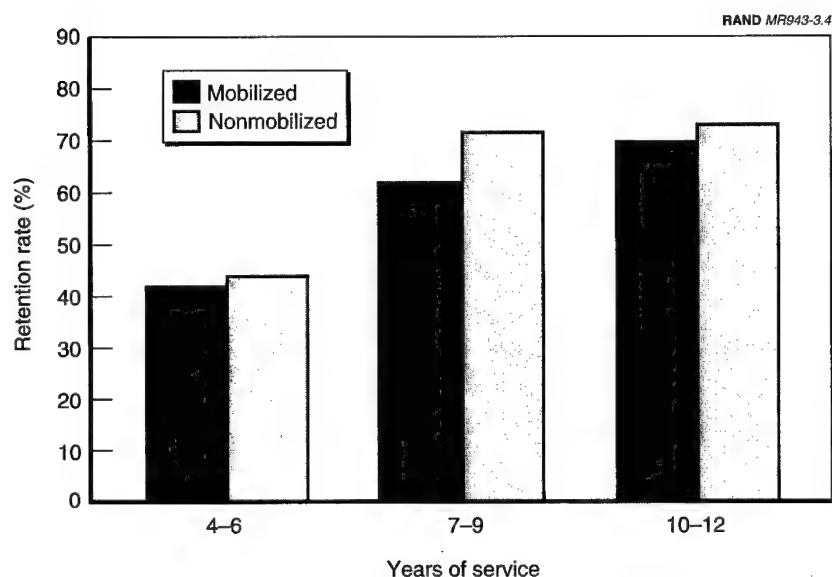
Figure 3.4—Retention Rates, by Years of Service

point. The differences between mobilized and nonmobilized groups are small and statistically insignificant.

Retention rates for different military occupations are shown in Figure 3.6, categorized into five groups: general military, technical, clerical, craftsmen, and service and supply workers.[9]

General military or combat occupations appear to have the lowest retention rate—47–52 percent. With the exception of craftsmen, the mobilized groups have slightly lower retention than the nonmobilized groups but the differences are not significant.

Previous research has shown that satisfaction with the reserve is highly correlated with intention to stay. We first present the distribution of enlisted personnel by level of satisfaction with participation in the reserves (Figure 3.7). It is clear that the majority of

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[9]This typology is widely used. See Eitelberg (1988) and Kirby and Thie (1996). Categories are based on Department of Defense (DoD) single-digit occupation codes.
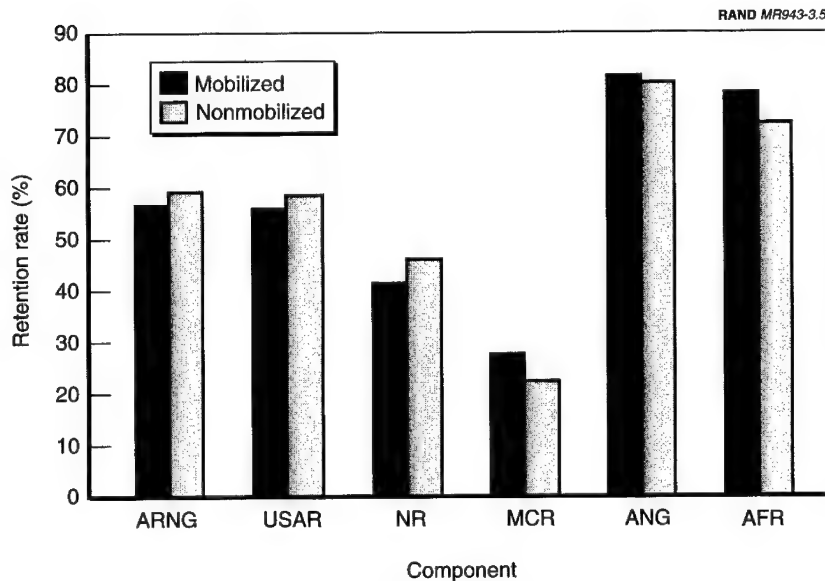
Figure 3.5—Retention Rates, by Component

reservists are satisfied with their overall participation in the reserves. Note that mobilized reservists are equally (or slightly more) satisfied with their participation in the reserve. This finding lends credence to the hypothesis that mobilization, by offering an opportunity for re-servists to put into practice their training and skills, may increase satisfaction with the reserve and have a beneficial effect on retention.

The relationship between satisfaction and retention is evident in Figure 3.8.[10] Reservists with higher levels of satisfaction have signif-icantly higher retention rates: 60–70 percent of those who were very satisfied with the reserve are still in the reserve three years later compared to only one-quarter to one-third of those who were very dissatisfied. There are also some interesting, if somewhat puzzling, differences between mobilized and nonmobilized reservists. Among reservists who were neither satisfied nor dissatisfied with the reserve,

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[10]Satisfaction was measured on a 7-point scale. We collapsed it into a 5-point scale by combining 1,2 (very satisfied) and 6,7 (very dissatisfied).
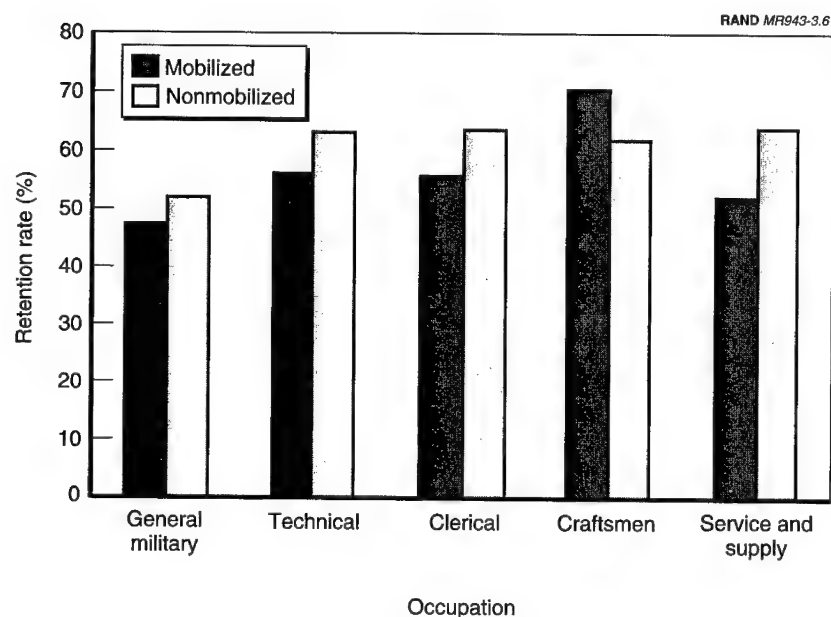
Figure 3.6—Retention Rates, by Primary Military Occupation

mobilized reservists have *higher* retention than nonmobilized re-
servists (a difference of 10 percentage points); at the other end of the
scale, among those who were very satisfied, mobilized reservists had
a somewhat *lower* retention rate (64 percent versus 72 percent).[11]
Although there is a large difference in retention among those who are
somewhat satisfied with reserve participation, the difference is not
statistically significant.

RETENTION RATES BY DEMOGRAPHIC VARIABLES

Reservists working for the federal, state, or local governments have
higher retention rates than reservists employed by private firms, or
those who are self-employed or are not working (Figure 3.9). The
reason probably lies in differences in attitudes of employers and

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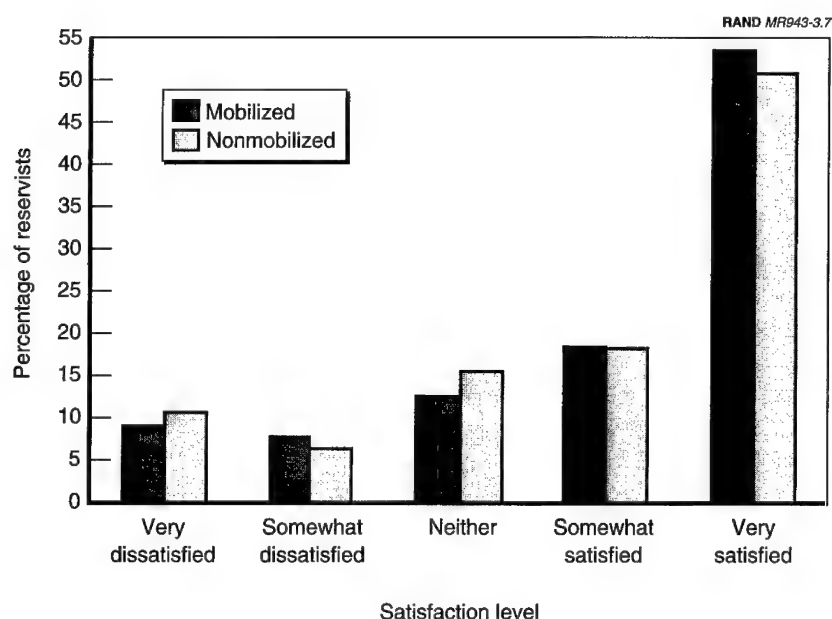[11]This is the only difference that is supported by statistical tests.

Figure 3.7—Distribution of Enlisted Reservists, by Satisfaction
with Reserve Participation

supervisors—those employed by the government are more likely to
receive greater support for their reserve obligations than those
employed by a private firm. In addition, these supervisors are more
likely to be aware of their legal obligations to provide such support.
Self-employed individuals may find it harder to take time away from
their businesses and are clearly at risk of economic losses when they
are mobilized. Those who were not working at the time of the survey
may have moved to find a job or may have new employers who are
not supportive of reserve commitment. Although the data show
some differences between mobilized and nonmobilized reservists,
these differences are generally not statistically significant.

Prior research has clearly shown the importance of family and
employer support in retention decisions. The next four figures un-
derscore the importance of attitudinal variables in models of
retention. An important caveat must be kept in mind when
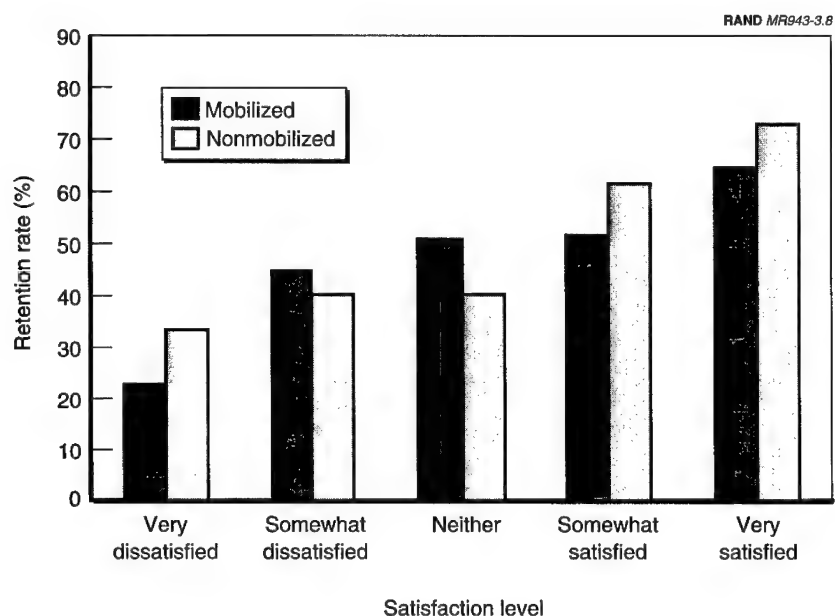examining these data. What we measure here is the *perception* of the

RAND *MR943-3.8*

Figure 3.8—Retention Rates, by Satisfaction with Participation in Reserves

reservist regarding his civilian supervisor's and spouse's attitude. If these perceptions are inaccurate or shaped by the reservist's own attidude, then our inferences and recommendations based on these data are likely to be incorrect as well.

Because we expect attitudes to differ considerably by years of service due to self-selection, the attitudinal data are disaggregated by years of service: 4–6 YOS, 6–9 YOS, and 10–12 YOS. Figure 3.10 shows the distribution in these three groups of reservists who report having supervisors with somewhat or very unfavorable attitudes toward reserve participation. Only about 10–15 percent of reservists perceive their civilian supervisors as having "somewhat" or "very" unfavorable attitudes toward their reserve participation; the proportion is slightly lower among the more experienced group. These rates are somewhat lower than those found in the 1986 Reserve Components Survey where 16 to 18 percent of supervisors were perceived as having unfavorable attitudes. We find that mobilized reservists appear
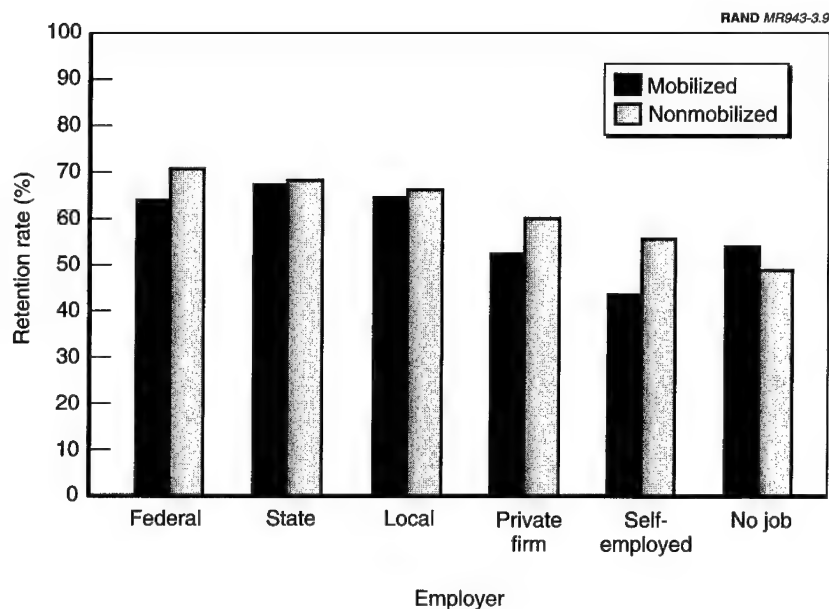
RAND *MR943-3.9*

Figure 3.9—Retention Rates, by Civilian Employer

to have fewer employer problems, but these differences are not significant.

Surprisingly, there is a U-shaped relationship between retention and supervisor attitude, rather than the linear relationship we had hypothesized (Figure 3.11). Reservists perceiving that their supervisors have very unfavorable attitudes actually have the *highest* retention rate—more than 70 percent—compared to 55–65 percent among those whose supervisors are very supportive. The retention rate decreases to a little more than 50 percent for those whose supervisors are neither favorable nor unfavorable. The differences between mobilized and nonmobilized groups are not statistically significant.

We can suggest some reasons for this finding: These attitudes were reported in late 1991; we are measuring retention three years later, in 1994. Many changes may have occurred in that time: Supervisors may have been replaced. The reservist may have been transferred to
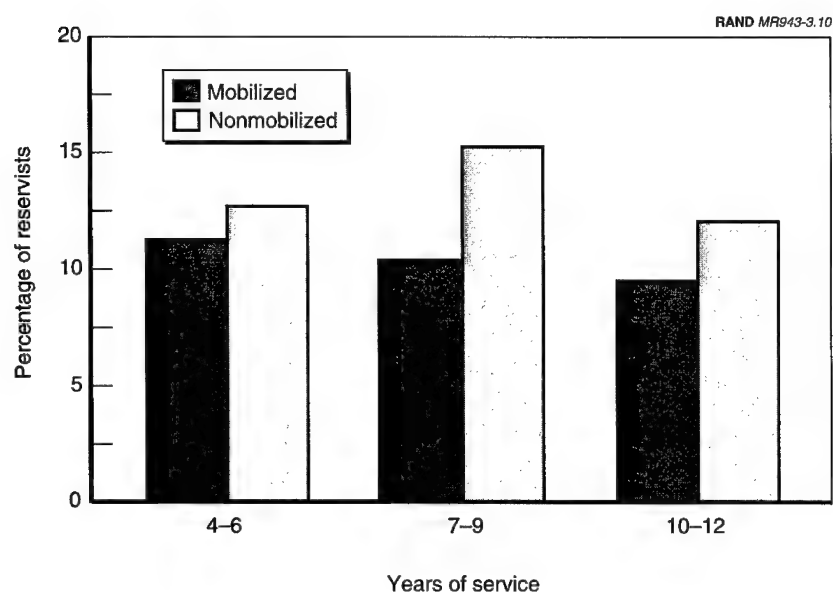
RAND *MR943-3.10*

Figure 3.10—Percentage of Employed Reservists Who Perceive That Their
Civilian Supervisors Have Unfavorable Attitudes Toward Reserve
Participation, by Years of Service

a new position or may have decided to look for a new civilian job
with a more supportive employer. We have no way of capturing such
changes. In addition, the reserves have considerably strengthened
their outreach effort to civilian employers and have aggressively
defended the rights of reservists. What we observe may be partly the
result of those efforts.

Previous studies have shown that spouse attitudes are the most im-
portant predictor of retention.[12] Figure 3.12 shows the percentage of
reservists who felt that their spouses had an unfavorable attitude

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[12]These data may be reflecting some of the reservist's own feelings regarding reserve
participation. If so, then the two variables are not really independent. We examined
the correlation between the reservist's overall satisfaction with reserve participation
and the perceived attitude of the spouse. The two are correlated, but the extent of the
correlation is not high, suggesting that this variable is indeed capturing some other
dimension important in the retention calculus.
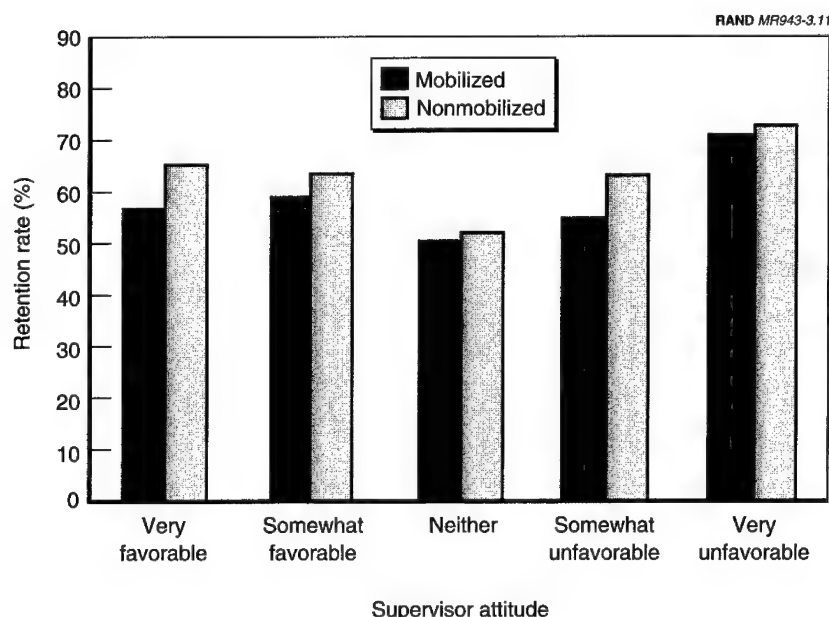
RAND *MR943-3.11*

Figure 3.11—Retention Rates, by Perceived Attitude of Civilian Supervisor

toward reserve participation. Between 17 and 26 percent of young married enlisted personnel reported having spouses with unfavorable attitudes; this was true only of 8 to 15 percent of the more experienced reservists. The marked drop in unfavorable attitude between the two YOS groups is probably due to self-selection; those with spouses who are opposed to their reserve participation are likely to separate early and thus not be reflected in the 7–12 YOS group. Mobilized reservists appear to have higher levels of unfavorable spouse attitudes, but we find the difference to be statistically insignificant.[13]

That spouse attitude has a large effect on retention is borne out by Figure 3.13. Nonmobilized reservists who perceive that their spouses have a very unfavorable attitude have a retention rate of 37 percent;

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[13]Although the differences are large in some cases, the sample size is small and varies between 32 and 60.
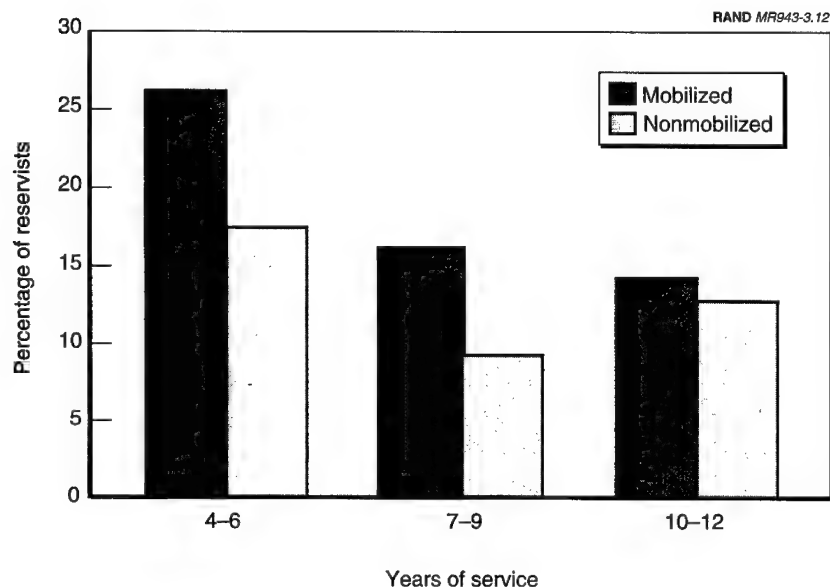
RAND *MR943-3.12*

Figure 3.12—Percentage of Married Reservists Who Perceive That Their
Spouses Have Unfavorable Attitudes Toward Reserve Participation,
by Years of Service

the retention rate among those with spouses who are very supportive
is about twice that: 73 percent. Similar patterns are found among
mobilized reservists. Statistical tests suggest that there are differ-
ences in retention between mobilized and nonmobilized reservists
with very favorable spouses, with mobilized reservists having lower
retention than nonmobilized reservists.

CONCLUSIONS

The bivariate relationships shown in this chapter reveal how reten-
tion varies by some characteristics of reservists. Retention varies in
expected ways by grade and years of service. There is considerable
variation across the Reserve Components, although these differences
should be viewed with caution, because of the problem with
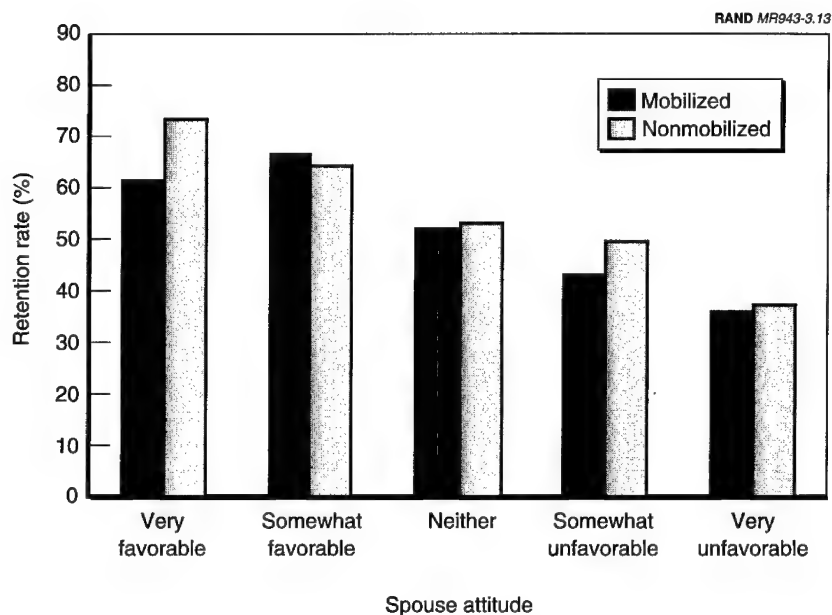weighting. Attitudinal variables appear to influence retention in

Figure 3.13—Retention Rates, by Perceived Attitude of Spouse

important ways, particularly spouse attitude and the attitude of the reservist toward reserve participation. On the whole, mobilization appeared to have had a small adverse effect on retention, lowering retention by about 5 percentage points, although the difference is marginally insignificant. We find some puzzling differences among subsamples of mobilized and nonmobilized groups: lower retention of mobilized reservists among those working for private firms, those with favorable spouses, and those who are very satisfied with their reserve participation.

MULTIVARIATE MODELS OF RETENTION

The multivariate models allow us to measure the net effect of different variables on retention—that is, the effect of a particular factor on retention—while controlling for the effects of other variables. Empirically, the retention decision is summarized by a dichotomous dependent variable that categorizes individuals as stayers or leavers. The outcome variable is defined as:

Y_{it} = 0, if individual i separated during time period t,

= 1, if individual i stayed during time period t.[1]

The logistic regression model is an appropriate choice for the functional form, since it restricts the value of the predicted probability to between 0 and 1. The model relates the retention decision of the ith individual, Y_i, to a vector of characteristics for that individual, X_i.

$$P_i = E(Y_i = 1 | X_i) = 1/(1 + e^{-(\beta_0 + \Sigma \beta_j X_{ij})})$$

where

P_i = probability of retention of a specific reservist i,

X_{ij} = values of the explanatory variable j for reservist i,

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[1]As we said above, staying is defined as staying in the enlisted force in one of the Selected Reserve components, regardless of whether the enlisted member remained as a part-timer or changed status to that of a full-time Active Guard/Reserve member or a military technician.

β_j = estimated coefficients for the X_j, and

β_0 = estimated constant term.

The ratio $P_i/(1 - P_i)$ is simply the odds ratio in favor of retention. The natural log of the odds ratio is assumed to be linear in X (or in some transformation of X) and the effects of the explanatory variables are assumed to be additive.

Separate models are estimated for reservists with 4–6 YOS and 7–12 YOS.[2] These models parallel those estimated by Grissmer, Kirby, and Sze (1992). Reservists with 4–6 YOS are likely making first-term retention decisions;[3] these reservists tend to have a much lower probability of retention. The 7–12 YOS group is older and making second-term or mid-career retention decisions, when retention typically tends to be much higher. We had seen earlier that retention among the less experienced group is a little less than half whereas retention among the latter is more than 70 percent. Part of the explanation for this is, of course, the differing characteristics of the two groups, as shown in Table 4.1. On average, reservists in the 7–12 YOS group are older, with higher paygrades, more likely to be married, and have dependents. In addition, they tend to have a more positive attitude toward reserve service and generally enjoy higher levels of spouse and supervisor support for their reserve service. Knowing what factors appear important in the retention decision for the two groups can help in designing policies specifically aimed at improving the experience mix of the force, if needed.

The models were estimated with both unweighted and weighted data. We report the unweighted results in the main body of the report; weighted estimates are reported in Appendix A. Appendix B

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[2]There appeared to be little difference between the 7–9 and 10–12 YOS groups in terms of magnitude of coefficients and directional effect, as indicated by the log likelihood test. As a result, we merged the two groups for estimation purposes.

[3]This may not be entirely correct; those with 6 YOS in 1991 may be making a first-term decision in 1991 or 1992 and then subsequent mid-career decisions in later years. However, we adopted this categorization for two reasons: One, it allowed us to retain comparability with the earlier study; two, those with 6 YOS are making first-term decisions in 1991–1992 and it was difficult to know where to draw the cutoff line. Perhaps it would be better to characterize the decisions being made as continuation or retention decisions without making hard-and-fast categorizations regarding whether they are first-term or mid-career decisions.

compares the weighted and unweighted results. In general, we find substantial agreement between the weighted and unweighted model estimates.

Table 4.1 shows the (unweighted) means and standard deviations of the variables used in the models.[4]

4–6 YOS MODEL

Estimation results for the 4–6 and 7–12 YOS retention models are presented in Table 4.2. Rather than show the logistic regression coefficients that often do not have an easy interpretation (they measure how the log-odds in favor of retention change as the independent variable changes by a unit), we have transformed these coefficients into retention probabilities. These probabilities are calculated from the regression coefficients using the equation shown above and represent a convenient and useful summary of the regression model effects. The table entries are estimated retention probabilities for an individual with the designated characteristics. In this table, a reference individual is defined and a retention probability calculated for that individual. Retention probabilities are then calculated for an individual who differs from that reference individual in one characteristic, holding all others constant at the reference category values.

The retention probability of the reference individual is 0.43. The reference reservist is a 27-year-old white male E-5, serving in the Army Reserve, with no prior active service. He serves in a technical occupation, was not mobilized during ODS/S, and would not have experienced a change in overall income if he had been deployed. His conditional probability of being called up, given the probability of

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[4]The total number of observations is somewhat smaller than the 3,269 observations that formed the basis of the analysis in the previous chapter. Among the 4–6 YOS group, we deleted 51 observations that had a value of paygrade of E-6 to E-9 (this seemed to be extremely unlikely, given the YOS) and another 30 because of missing data (primarily age, conditional probability of being called up, etc.). Among the 7–12 YOS, we deleted 41 observations with paygrade lower than E-4 (again extremely unlikely) and 38 because of missing data. We estimated the models both with and without the excluded grades and found little difference in the remaining coefficients. However, the coefficients for those particular paygrade variables appeared absurdly large, hence these observations were omitted. We did not attempt to correct for missing data because the number of deleted cases was quite small.

Table 4.1

Means and Standard Deviations of the Analysis Variables

Variable	4–6 YOS		7–12 YOS	
	Mean	S. D.	Mean	S. D.
N	1,310		1,827	
Dependent Variable				
Continued through September 1994	0.47	0.50	0.72	0.45
Service-Related Variables				
Deployed during ODS/S	0.53	0.50	0.54	0.50
Medical occupation	0.45	0.50	0.42	0.49
Paygrade				
E-3	0.08	0.27	—	—
E-4	0.51	0.50	0.14	0.34
E-5	0.41	0.49	0.54	0.50
E-6	—	—	0.28	0.45
E-7/E-9	—	—	0.04	0.19
Component				
Army National Guard	0.08	0.27	0.09	0.29
Army Reserve	0.22	0.41	0.19	0.40
Naval Reserve	0.24	0.42	0.16	0.37
Marine Corps Reserve	0.11	0.31	0.04	0.20
Air National Guard	0.18	0.39	0.23	0.42
Air Force Reserve	0.18	0.38	0.28	0.45
No prior active service[a]	0.68	0.47	0.39	0.49
Prior active service	0.32	0.47	0.61	0.49
Primary occupation				
General military	0.13	0.34	0.12	0.33
Technical	0.51	0.50	0.48	0.50
Clerical	0.11	0.31	0.15	0.36
Craftsmen	0.16	0.36	0.16	0.37
Service and supply	0.09	0.29	0.08	0.27
Mobilized military income compared to civilian income				
Higher by 20% or more	0.18	0.38	0.14	0.35
Higher by 10% to 19%	0.10	0.30	0.09	0.29
Higher by 5% to 9%	0.11	0.31	0.11	0.32
Less than 5% change/no change	0.21	0.41	0.20	0.40

Table 4.1 (continued)

Variable	4–6 YOS		7–12 YOS	
	Mean	S. D.	Mean	S. D.
Lower by 5% to 9%	0.10	0.30	0.09	0.28
Lower by 10% to 19%	0.11	0.31	0.12	0.32
Lower by 20% or more	0.19	0.40	0.24	0.43
Conditional probability of being called up in the event of war[b]	0.25	0.23	0.27	0.23
Satisfaction with reserve participation[c]				
Very satisfied	0.46	0.50	0.59	0.49
Somewhat satisfied	0.19	0.29	0.18	0.38
Neither	0.15	0.36	0.12	0.32
Somewhat dissatisfied	0.07	0.25	0.06	0.23
Very dissatisfied	0.13	0.33	0.06	0.23
Demographic and Civilian Employment Variables				
Female	0.30	0.46	0.30	0.46
White	0.75	0.43	0.74	0.44
Black	0.15	0.35	0.16	0.37
Hispanic	0.06	0.23	0.06	0.23
Other	0.05	0.21	0.04	0.19
Age (years)	26.7	4.58	33.1	5.98
High school nongraduate	0.04	0.20	0.07	0.26
High school graduate	0.79	0.41	0.70	0.46
Some college	0.16	0.37	0.23	0.42
Married	0.34	0.48	0.61	0.49
No dependents	0.64	0.48	0.34	0.47
One dependent	0.19	0.40	0.21	0.41
Two or more dependents	0.17	0.39	0.45	0.50
Spouse not working/no spouse	0.69	0.46	0.54	0.50
Spouse working full-time	0.26	0.44	0.37	0.48
Spouse working part-time	0.05	0.23	0.09	0.29

Table 4.1 (continued)

Variable	4–6 YOS		7–12 YOS	
	Mean	S. D.	Mean	S. D.
Spouse attitude toward reserve participation				
Very favorable	0.15	0.36	0.29	0.45
Somewhat favorable	0.10	0.31	0.18	0.38
Neither/no spouse	0.65	0.48	0.45	0.50
Somewhat unfavorable	0.07	0.25	0.06	0.24
Very unfavorable	0.03	0.17	0.03	0.17
Civilian job				
No job	0.21	0.41	0.16	0.37
Federal government	0.07	0.25	0.14	0.34
State government	0.07	0.25	0.09	0.28
Local government	0.07	0.25	0.10	0.30
Private firm	0.52	0.50	0.47	0.50
Self-employed	0.06	0.23	0.05	0.21
Civilian supervisor's attitude toward reserve participation				
Very favorable	0.31	0.46	0.34	0.47
Somewhat favorable	0.16	0.37	0.19	0.39
Neither/self-employed/no job	0.43	0.50	0.38	0.48
Somewhat unfavorable	0.07	0.25	0.07	0.25
Very unfavorable	0.03	0.16	0.03	0.16
Weekly hours on civilian job	31.4	18.6	35.6	17.0

[a]Based on the Congressional definition of prior active service as those with 2 years or more of active service.

[b]Reservists were asked about the likelihood of another war requiring a reserve call-up occurring in the next 5 years and the likelihood of being called up if such a mobilization occurred. The variable is the product of those two probabilities.

[c]This was measured on a 7-point scale. We collapsed it into a 5-point scale by combining 1,2 (very satisfied) and 6,7 (very dissatisfied).

another war occurring during the next five years, is 0.25.[5] He is neither satisfied nor dissatisfied with his overall participation in the reserves. He is employed in a private firm, works 31.4 hours per week, and has a supervisor who has a neutral attitude toward his

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[5]This is the respondent's own estimate of the likelihood of being called up, given his estimate of a mobilization occurring in the next five years. See footnote b in Table 4.1 and also Appendix C for the actual wording of the questions in the survey.

Table 4.2

Retention Probabilities: 4–6 and 7–12 Years of Service

Variable	4–6 YOS	7–12 YOS
Average retention probability[a]	*0.43*	*0.68*
Service-Related Variables		
Mobilization status		
Not mobilized during ODS/S[b]	*0.43*	*0.68*
Mobilized during ODS/S	0.45	0.66
Nonmedical occupation[b]	*0.43*	*0.68*
Medical occupation	0.37	0.63
Paygrade		
E-3	0.33	—
E-4	0.33*	0.56*
E-5[b]	*0.43*	*0.68*
E-6	—	0.72
E-7/E-9	—	0.74
Component		
Army National Guard	0.38	0.62
Army Reserve[b]	*0.43*	*0.68*
Naval Reserve	0.32*	0.53*
Marine Corps Reserve	0.14*	0.38*
Air National Guard	0.60*	0.77*
Air Force Reserve	0.57*	0.71
No prior active service[b]	*0.43*	*0.68*
Prior active service	0.43	0.66
Primary occupation		
General military	0.32	0.67
Technical[b]	*0.43*	*0.68*
Clerical	0.41	0.63
Craftsmen	0.47	0.70
Service and supply	0.40	0.60
Mobilized military income compared to civilian income		
Higher by 20% or more	0.47	0.64
Higher by 10% to 19%	0.48	0.65
Higher by 5% to 9%	0.38	0.69
Less than 5% change/no change[b]	*0.43*	*0.68*

Table 4.2 (continued)

Variable	4–6 YOS	7–12 YOS
Lower by 5% to 9%	0.42	0.72
Lower by 10% to 19%	0.49	0.64
Lower by 20% or more	0.38	0.67
Conditional probability of being		
called up in the event of war[c]	0.43*	0.68
Satisfaction with reserve participation		
Very satisfied	0.66*	0.80*
Somewhat satisfied	0.55*	0.76*
Neither[b]	0.43	0.68
Somewhat dissatisfied	0.31	0.66
Very dissatisfied	0.31*	0.51*
<u>Demographic and Civilian</u>		
<u>Employment Variables</u>		
Female	0.36*	0.62
Male[b]	0.43	0.68
White[b]	0.43	0.68
Black	0.53*	0.74*
Hispanic	0.41	0.76
Other	0.47	0.77
Age (years)[c]	0.43*	0.68*
High school nongraduate	0.44	0.65
High school graduate[b]	0.43	0.68
Some college	0.50	0.74*
Not married[b]	0.43	0.68
Married	0.39	0.74
No dependents[b]	0.43	0.68
One dependent	0.36	0.69
Two or more dependents	0.40	0.62
Spouse not working/no spouse[b]	0.43	0.68
Spouse working full-time	0.53*	0.68
Spouse working part-time	0.39	0.68
Spouse attitude toward reserve participation		
Very favorable	0.39	0.72
Somewhat favorable	0.32	0.74
Neither/no spouse[b]	0.43	0.68

Table 4.2 (continued)

Variable	4–6 YOS	7–12 YOS
Somewhat unfavorable	0.19*	0.59
Very unfavorable	0.28	0.43*
Civilian job		
No job	0.37	0.65
Federal government	0.46	0.76*
State government	0.56*	0.70
Local government	0.46	0.67
Private firm[b]	*0.43*	*0.68*
Self-employed	0.29*	0.77
Civilian supervisor's attitude toward reserve participation		
Very favorable	0.44	0.69
Somewhat favorable	0.51	0.71
Neither/self-employed/no job[b]	*0.43*	*0.68*
Somewhat unfavorable	0.51	0.72
Very unfavorable	0.66*	0.72
Weekly hours on civilian job[c]	*0.43*	*0.68*

*Significant at the 0.05 level.

[a]Of the reference individual.

[b]Reference characteristic.

[c]Reference value for continuous variables is the mean.

reserve participation. He is single, has no dependents, and is a high school graduate.

Service-Related Variables

We were primarily interested in the effect of mobilization on retention, holding other factors constant. Our multivariate models show little or no effect of mobilization on retention.[6] Mobilized reservists have a slightly higher probability of retention: 0.45 compared to 0.43

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[6]There was some concern that the effects of deployment might be confounded with the effects of some of the other service-related variables in this model, such as satisfaction with reserve participation, likelihood of future call-up, occupational specialty, or possible loss of income during deployment. Separate models were estimated with and without these variables for both groups. Being mobilized was still found to have a small and insignificant effect on retention.

for nonmobilized reservists, but this difference is statistically insignificant.

Reservists with a higher probability of being called up in the event of war have a significantly *higher* probability of retention than those with a lower probability, suggesting that reservists are motivated to stay by the chance to use their training in real-life situations.[7] The elasticity of the probability of retention with respect to the conditional probability of being called up evaluated at the mean is 0.11. In other words, a 10 percent increase in the conditional probability of being called up would increase the probability of retention by 1.1 percent, i.e., from 0.43 to 0.44.

Retention varies by paygrade and component in expected ways. Lower paygrades, holding years of service constant, have lower retention probabilities: an E-5 has a retention probability of 0.43 whereas an E-4 has a significantly lower retention probability of 0.33.[8] This is not surprising, given that higher rank at this point in the career suggests a faster promotion track as well as higher pay.

The probability of retention is significantly lower in the Naval Reserve and the Marine Corps Reserve and significantly higher in the two Air components. The probability of retention is only 0.14 in the Marine Corps.[9] The Marine Corps has a deliberate policy of keeping retention quite low at the first-term reenlistment point to maintain a

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[7]One needs to be a little cautious in interpreting this coefficient. The straightforward interpretation, which has merit, is that individuals want an opportunity to exercise their skills and use their training and that the higher the probability of being able to do so leads to higher retention. However, these probabilities were self-reported immediately after the successful and popular Gulf War; we have not tracked these individuals to see whether they were indeed called up for the several smaller and not quite as popular missions that the reserve components have been engaged in since then or whether individuals who were mobilized more frequently do indeed have higher retention. All we can say is that reservists in the wake of ODS/S with higher probabilities of being called up chose to remain in the reserves at higher rates than those with lower probabilities of call-ups.

[8]The difference between E-3 and E-5 is not statistically significant because of small sample size.

[9]It is important to remember that differences in retention probabilities for a given individual are described above (an E-5, single, 27 years old, not mobilized, etc.). If components differ substantially in age or experience mix, then we would need to factor in these other variables before we could obtain an overall component retention probability.

youthful, vigorous force. In contrast, reservists in the Air National Guard and Air Force Reserve have much higher retention probabilities of 0.60 and 0.57. These patterns reflect the different missions, experience needs, and inherent characteristics of these components.

Overall satisfaction with participation in the reserves has a strong, and significant effect on the probability of retention. The probability of retention for someone who is very dissatisfied is 0.31 whereas the probability of retention for someone who is very satisfied is more than twice as large: 0.66.[10]

Several other service-related variables show little effect on retention: prior active military service, perceived differences between civilian income and military income during deployment, and being in a military medical occupation. By and large, we do not find significant differences among occupations.

Demographic Characteristics and Civilian Work

Females are significantly less likely to remain in the reserve. Blacks have a higher probability of retention (0.53) than their white counterparts and this mirrors what other research has found. Age has a

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[10]An important question arises regarding the inclusion of this variable in the model and the effect it potentially could have in disguising or overshadowing the true effect of mobilization on retention. If mobilization has an effect on satisfaction and satisfaction is an important determinant of retention, then using classic path analysis, one could argue that mobilization has both a direct effect on retention and an indirect effect via its effect on satisfaction. The total effect is the sum of these two effects.

We measure the direct effect of mobilization in the models estimated above, which, as we had seen, is small and statistically insignificant. The indirect effect is measured by modeling satisfaction as a function of several variables, including mobilization. We estimated this model several different ways but found that, generally, mobilization appeared to have little significant effect on satisfaction. It had a small and positive effect in the 4–6 YOS model and a small and negative effect in the 7–12 YOS model. The total effect can be measured by excluding satisfaction from the original specification. Again, we find that the effect on retention was small and positive in the 4–6 YOS model and small and negative in the 7–12 YOS model. The effect was statistically insignficant in both. We also estimated a reduced form model, which included only the demographic, component, civilian and military occupation variables, and mobilization status as the independent variables. The results mirror those found above with one small difference: In the 4–6 YOS model, the effect of mobilization on retention has a p-value of 0.055 but the 95 percent confidence interval includes both negative and positive values, suggesting that one cannot rule out the possibility that the effect of mobilization may be zero.

significant effect on retention with older reservists more likely to stay in. The elasticity of the probability of retention with respect to age is 0.57, i.e., a 10 percent increase in age is associated with an increase of 5.7 percent in the probability of retention (from 0.43 to 0.46).

Other variables including educational attainment, marital status, and number of dependents appear not to have an effect on retention.

It is interesting to note that reservists whose spouses work full-time have a significantly higher retention probability (0.53) than those whose spouses do not work. One possible reason is that spouses with full-time jobs may be more familiar with and tolerant of the demands and stresses of working outside the home.

Perceived unfavorable spouse attitudes have a significant and adverse effect on retention. Reservists whose spouses are unfavorably disposed to reserve participation have considerably smaller retention probabilities than those with spouses who were neither favorable nor unfavorable: 0.19–0.28 compared to 0.43. Unlike our earlier study, we do not find significant differences in retention between those with favorably disposed spouses and those with spouses who have a more neutral attitude.

Surprisingly (but mirroring what we had found in the bivariate relationships), perceived unfavorable attitudes of civilian supervisors have a significant and *positive* effect on retention. These reservists were actually more likely to remain in the reserves, with a retention probability of 0.66. Earlier we had suggested some reasons for this finding. Given that we are examining behavior three years after the fielding of the survey, it is possible that jobs, supervisors, or circumstances have changed since then. In addition, aggressive efforts on the part of the reserve to educate employers regarding reservists' rights may have helped reservists facing difficulties on the job.

The type of civilian employer also has some effect on retention. Reservists working for the government have higher retention probabilities, and the difference is significant for state employees. Not surprisingly, self-employed reservists have a markedly lower retention probability (0.29); conflicts with time and the pressures of business are likely to be greater for such individuals.

7–12 YOS MODEL

The average reenlistment probability for the 7–12 YOS reference individual is, as one would expect, considerably higher, 0.68. These individuals are a self-selected group to some extent because they have reenlisted/extended at least once, thus displaying a higher taste for military service. In addition, the value of retirement benefits increases with experience, so one would expect those with more experience to stay in at higher rates. The reference individual has the same characteristics as in the 4–6 YOS model, except for the continuous variables. This individual is 33 years old, works an average of 35 hours per week on the civilian job, and has a somewhat higher probability of being called up in the event of a war (0.27).

Service-Related Variables

The results here mirror those we found with the 4–6 YOS model. Although deployed reservists have a slightly lower retention probability (0.66 compared to 0.68), the difference is not statistically significant. Similar to less experienced reservists, those serving in a military medical occupation tend to have lower retention probabilities, but, again, the difference is not statistically significant.

Retention varies with paygrade in expected ways. An E-4 has a significantly lower retention probability compared to an E-5, and although the higher paygrades have higher retention, the differences are not statistically significant. With respect to component, we again find that the Marine Corps Reserve has the lowest retention probability (0.38) and the Air National Guard has the highest probability (0.77).

The relationship between satisfaction with overall participation in the reserves and subsequent retention behavior is equally strong in this model. Retention probabilities range from 0.80 for those who are very satisfied to 0.51 for those who are very dissatisfied—a wide range.

Other service-related variables were found to have no significant effect on retention, including the conditional probability of being mobilized in the future.[11]

Demographic Characteristics and Civilian Work

Older reservists have a significantly higher likelihood of remaining in the reserve. The elasticity of the probability of retention with respect to age is somewhat smaller than seen earlier: 0.21. That is, if the reference reservist were 36 years old instead of 33 years (a 10 percent increase in age), then his probability of retention would be 2.1 percent higher: 0.69 rather than 0.68.

Reservists with at least some college education have a retention rate of 0.74, significantly higher than that of high school graduates. Unfavorable spouse attitude has a large and negative effect on retention (lowering retention to 0.43), similar to what we found for the earlier model. Those working for the federal government have a somewhat higher probability of retention.

Other than these variables, gender, race, marital status, dependents, and spouse employment status do not have significant effects on retention probabilities, nor do other variables related to civilian employment such as supervisor attitude[12] and average hours worked per week on the civilian job.

SUMMARY

The following are the major findings from these retention models:

1. Among service-related variables, paygrade and component have a significant effect on retention probabilities. Neither mobilization nor being in a medical occupation has any effect on retention. The likelihood of being called up has a small and *positive* effect on retention. Occupation does not appear to be systematically

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[11]The relationship between retention and the probability of being called up is positive.

[12]Here again, we find the rather perverse relationship between unfavorable supervisor attitude and *higher* retention.

related to retention although general military occupations do have a lower probability of retention than technical occupations.

2. Satisfaction with the reserves is the most important predictor of the likelihood of remaining in the reserves; those who are very satisfied with the reserves have retention probabilities that are one-and-a-half to two times as large as the probabilities of those who are very dissatisfied with the reserves.

3. Negative spouse attitudes have a large and highly negative effect on the probability of retention, although we do not see an effect in the opposite direction. Perversely, retention probabilities were the highest among those with supervisors with very unfavorable attitudes; this may be because of the length of time between the reported attitude and the retention decision.

4. Blacks are much more likely to stay in the reserves, even after controlling for other factors, than their white counterparts; age has a small and positive effect on retention; working for the government appears to increase retention, whereas the effect of being self-employed is different across the two models: lower retention among the less experienced reservists and higher retention among the more experienced reservists.

ANALYSIS OF MOBILIZED RESERVISTS

The 1991 survey was particularly aimed at mobilized reservists and at gathering information regarding their mobilization and post-mobilization experience. To this end, Section III of the survey (see Appendix B, Form 1) asked reservists questions about problems that they faced with respect to their civilian employer and/or family because of mobilization. A subset of questions focused on change in economic status: income loss (or gain) during mobilization, additional expenses incurred by the family, and loss of employer-provided benefits. These questions allow us to analyze the direct effect of these variables on retention.

ECONOMIC EFFECT OF MOBILIZATION ON RETENTION

Figure 5.1 shows the extent and magnitude of income loss suffered by reservists during mobilization. Slightly more than half of the mobilized reservists did not experience any income loss; a little less than a third lost $1–$4,999 in income; about 15 percent had losses of $5,000 or more.

In addition to lost income, reservists faced additional expenses because of mobilization. Unfortunately, the survey failed to ask the source of such expenses, but the most likely sources are child care expenses, expenses related to purchasing the benefits previously provided by employers, and, for self-employed reservists, expenses associated with keeping up a business or with the spouse having to work. Figure 5.2 shows the percentage of reservists who experienced such additional expenses. The extent of this problem is far greater than the extent of income loss during mobilization. About three-

RAND *MR943-5.1*
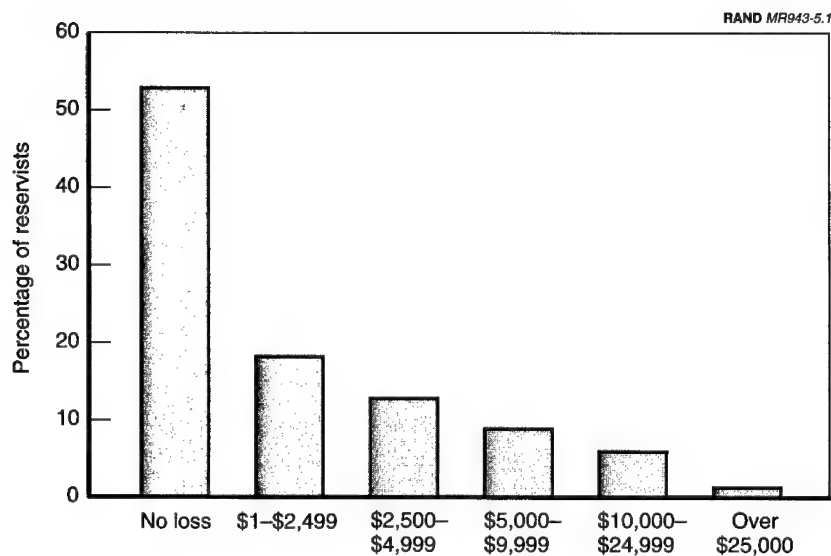
Figure 5.1—Income Loss During Mobilization: Mobilized Reservists

quarters of mobilized reservists incurred additional expenses and about half had expenses of $1–$2,499. A little more than a quarter had expenses of $2,500 or more.

Income losses and additional expenses could be expected to have an effect on retention of returning reservists. The simple bivariate tabulations of the extent of these losses and subsequent retention show some decline in retention as losses become larger (Figures 5.3–5.4). Because of small sample sizes, we combined the groups reporting income losses or additional expenses of $5,000 or more. As is clear from the figures, retention rates are lower among those reporting larger losses (with one exception). For example, the retention rate is 58 percent among those with no income loss or no additional expenses and 50 percent among those with income losses or additional expenses of $2,500 or higher. Figure 5.4 shows a small puzzling upturn in retention among those with the highest additional expenses of $5,000 or more, which is hard to explain. It would have been useful to know the reason for these additional expenses to judge the

RAND MR943-5.2
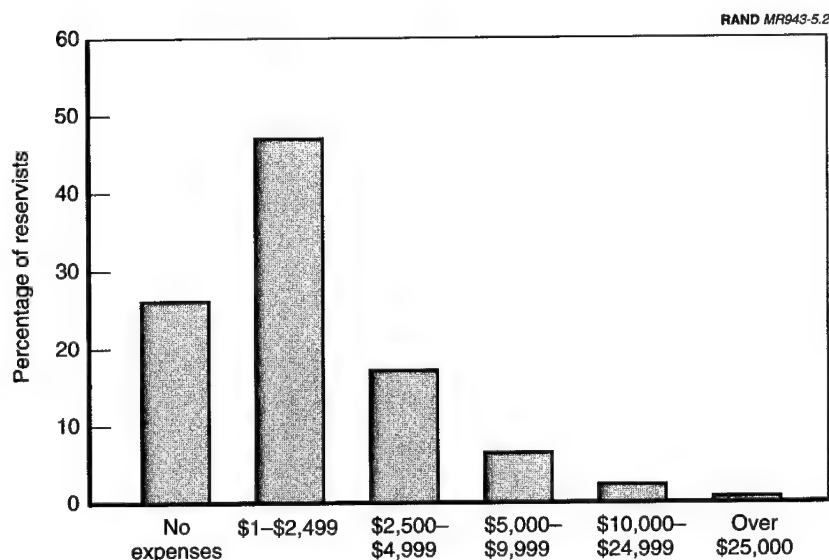
Figure 5.2—Additional Expenses Resulting from Mobilization:
Mobilized Reservists

credibility of these data. However, none of these differences proved
statistically significant.

MODELING THE EFFECT OF MOBILIZATION
ON RETENTION

The survey form sent to mobilized reservists in 1991 contained a
number of specific questions about their experiences during ODS/S.
As a result, we are able to examine the effects of several important as-
pects of the mobilization experience on subsequent retention behav-
ior. The expanded model retains the variables used in the previous
analysis and adds several variables that represent aspects of mobi-
lization that could be expected to affect retention.

Means and standard deviations of the analysis variables are shown in
Table 5.1 and the regression results (unweighted) are presented in
Table 5.2.

RAND *MR943-5.3*
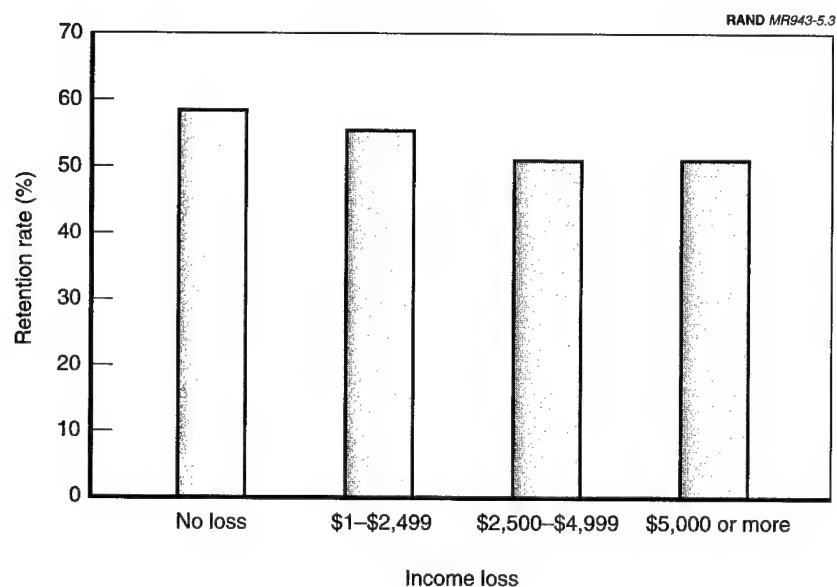
**Figure 5.3—Retention Rates, by Income Loss Resulting from
Mobilization: Mobilized Reservists**

A significant number of reservists suffered economic losses resulting
from mobilization. Among reservists in the 4–6 YOS sample, 12 per-
cent lost $5,000 or more in income and 20 percent had more than
$2,500 in extra expenses because of mobilization. Those with 7–12
YOS had a higher incidence of large economic losses: 18 percent lost
$5,000 or more in income and 28 percent had more than $2,500 in
additional expenses. Other serious economic and job-related prob-
lems experienced by reservists include loss of civilian health benefits,
loss of seniority and promotion opportunity on the civilian job, and
damage to a business or medical practice. About 20 percent reported
having increased family problems as a result of mobilization.

Other experiential data focused on the purely military aspects of
mobilization—whether individuals were sent abroad, whether they
worked in their primary occupation during the mobilization,
whether they experienced problems with their military pay, and
whether they felt valued by their active duty counterparts. During
ODS/S, 41 percent of reservists remained in the United States.
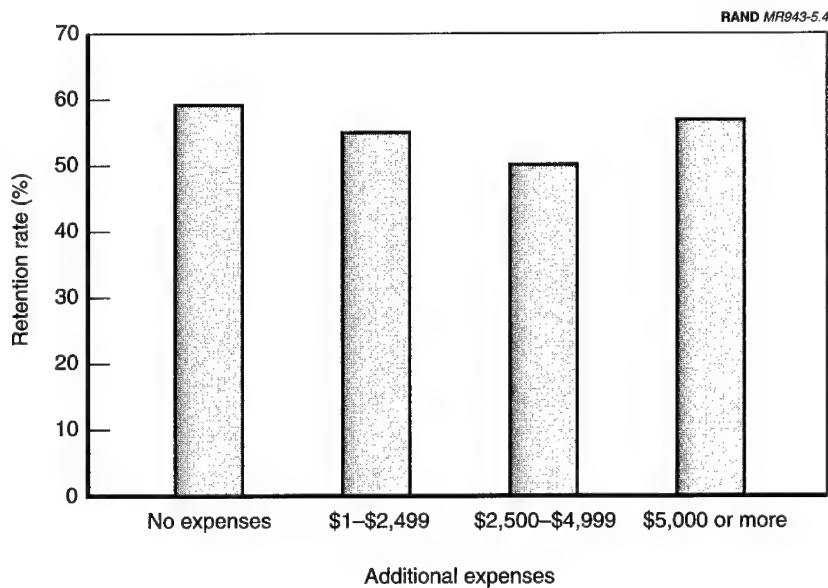
**Figure 5.4—Retention Rates, by Additional Expenses Resulting
from Mobilization: Mobilized Reservists**

Between a third and a quarter served in occupations other than the
primary occupation for which they were trained, and nearly half had
problems with their military pay during mobilization. About 20–25
percent felt that their contributions were not valued by active duty
personnel.

REGRESSION RESULTS

The reference individuals in the 4–6 and 7–12 YOS models for mobi-
lized reservists have the same basic characteristics as those in the
previous models. In addition, the reference individuals did not ex-
perience serious problems with family, loss of promotion opportuni-
ties, damage to business, or loss of civilian health benefits. They did
not have problems with military pay, they served in CONUS and in
their primary occupation, and they felt that their contributions were
somewhat valued by active duty personnel.

Table 5.1

**Means and Standard Deviations of the Analysis Variables,
Mobilized Reservists**

Variable	4–6 YOS		7–12 YOS	
	Mean	S. D.	Mean	S. D.
N	689		987	
Dependent Variable				
Continued through September 1994	0.48	0.50	0.71	0.45
Service-Related Variables				
Medical occupation	0.47	0.50	0.43	0.50
Paygrade				
E-3	0.07	0.25	—	—
E-4	0.48	0.50	0.11	0.32
E-5	0.45	0.49	0.54	0.50
E-6	—	—	0.31	0.46
E-7/E-9	—	—	0.04	0.20
Component				
Army National Guard	0.06	0.24	0.09	0.28
Army Reserve	0.22	0.42	0.19	0.39
Naval Reserve	0.22	0.41	0.14	0.36
Marine Corps Reserve	0.14	0.34	0.05	0.23
Air National Guard	0.15	0.36	0.19	0.39
Air Force Reserve	0.21	0.41	0.34	0.47
Prior active service[a]	0.30	0.46	0.59	0.49
Primary occupation				
General military	0.15	0.35	0.14	0.35
Technical	0.52	0.50	0.48	0.50
Clerical	0.09	0.29	0.12	0.33
Craftsmen	0.13	0.33	0.14	0.35
Service and supply	0.11	0.31	0.11	0.31
Mobilized military income compared to civilian income				
Higher by 20% or more	0.21	0.41	0.16	0.37
Higher by 10% to 19%	0.11	0.32	0.11	0.31
Higher by 5% to 9%	0.13	0.33	0.14	0.34
Less than 5% change/no change	0.18	0.39	0.19	0.39
Lower by 5% to 9%	0.11	0.31	0.08	0.28
Lower by 10% to 19%	0.11	0.31	0.12	0.32
Lower by 20% or more	0.15	0.36	0.20	0.40

Table 5.1 (continued)

Variable	4–6 YOS		7–12 YOS	
	Mean	S. D.	Mean	S. D.
Conditional probability of being called up in the event of war[b]	0.28	0.24	0.30	0.25
Satisfaction with reserve participation[c]				
Very satisfied	0.49	0.50	0.60	0.49
Somewhat satisfied	0.20	0.40	0.17	0.38
Neither	0.13	0.33	0.11	0.31
Somewhat dissatisfied	0.07	0.25	0.06	0.24
Very dissatisfied	0.11	0.31	0.05	0.23
Demographic and Civilian Employment Variables				
Female	0.30	0.46	0.28	0.45
White	0.73	0.44	0.75	0.43
Black	0.16	0.37	0.17	0.38
Hispanic	0.06	0.24	0.04	0.19
Other	0.05	0.22	0.04	0.19
Age (years)	26.6	4.49	33.1	5.91
High school nongraduate	0.04	0.19	0.07	0.26
High school graduate	0.80	0.40	0.72	0.45
Some college	0.16	0.37	0.21	0.41
Married	0.34	0.48	0.59	0.49
No dependents	0.66	0.48	0.33	0.47
One dependent	0.18	0.39	0.23	0.42
Two or more dependents	0.16	0.38	0.44	0.50
Spouse not working/no spouse	0.70	0.46	0.54	0.50
Spouse working full-time	0.26	0.44	0.37	0.48
Spouse working part-time	0.04	0.21	0.09	0.29
Spouse attitude toward reserve participation				
Very favorable	0.15	0.35	0.27	0.45
Somewhat favorable	0.10	0.31	0.17	0.38
Neither/no spouse	0.66	0.48	0.47	0.50
Somewhat unfavorable	0.06	0.24	0.06	0.23
Very unfavorable	0.03	0.18	0.03	0.18

Table 5.1 (continued)

Variable	4–6 YOS		7–12 YOS	
	Mean	S. D.	Mean	S. D.
Civilian job				
No job	0.21	0.41	0.18	0.39
Federal government	0.05	0.22	0.14	0.34
State government	0.07	0.25	0.09	0.29
Local government	0.07	0.25	0.10	0.30
Private firm	0.53	0.50	0.45	0.50
Self-employed	0.07	0.25	0.04	0.19
Civilian supervisor's attitude toward reserve participation				
Very favorable	0.33	0.47	0.33	0.47
Somewhat favorable	0.14	0.35	0.18	0.39
Neither/self-employed/no job	0.44	0.50	0.38	0.49
Somewhat unfavorable	0.06	0.23	0.07	0.25
Very unfavorable	0.03	0.17	0.03	0.17
Weekly hours on civilian job	31.8	18.9	35.0	17.6
Mobilization-Related Variables				
Serious problems resulting from ODS/S call-up[d]				
Increased family problems	0.17	0.38	0.22	0.41
Business or medical practice was damaged	0.04	0.20	0.05	0.22
Lost seniority/promotion opportunity/ responsibility on civilian job	0.13	0.34	0.16	0.36
Lost civilian health benefits during the call-up	0.15	0.36	0.22	0.41
Had problems with military pay	0.48	0.50	0.48	0.50
Spent 75% or more time working in primary MOS	0.66	0.48	0.73	0.44
Deployed overseas	0.60	0.49	0.56	0.50
Total income loss resulting from call-up				
Did not lose income	0.58	0.49	0.52	0.50
Lost $1–$4,999	0.28	0.45	0.30	0.46
Lost $5,000 or more	0.12	0.33	0.18	0.39

Table 5.1 (continued)

Variable	4–6 YOS		7–12 YOS	
	Mean	S. D.	Mean	S. D.
Total additional expenses resulting from call-up				
No expenses	0.27	0.44	0.25	0.43
$1–$2,499	0.51	0.50	0.47	0.50
$2,500–$4,999	0.13	0.33	0.18	0.38
$5,000 or more	0.07	0.25	0.10	0.30
How much do you think the active force members you worked with valued your contribution to the ODS/S mission?				
1. Very much	0.41	0.49	0.51	0.50
2.	0.17	0.38	0.12	0.33
3.	0.17	0.35	0.14	0.35
4.	0.08	0.28	0.09	0.29
5. Not at all	0.17	0.38	0.12	0.32

[a]Based on the Congressional definition of prior active service as those with 2 years or more of active service.

[b]Reservists were asked the likelihood of another war requiring a reserve call-up occurring in the next 5 years and the likelihood of being called up if such a mobilization occurred. This variable is the product of those two probabilities.

[c]This was measured on a 7-point scale. We collapsed it into a 5-point scale by combining 2,3 (somewhat satisfied) and 5,6 (somewhat dissatisfied).

[d]Reservists were asked to rate the seriousness of the problem using a 7-point scale where 1 meant "extremely serious" and 7 "not a problem." The proportions shown here are for those who rated the problem 1, 2, or 3.

The addition of the mobilization variables essentially does not add any explanatory power to the model and it does not change the direction or significance of the earlier results.[1] We find that among the more experienced reservists, those who reported increased family problems in the wake of mobilization had significantly lower retention than the typical reservist (0.56 compared to 0.70). In the 4–6 YOS model, only the loss of civilian health benefits is significantly related to retention and the effect is counter to what we would have expected. Those who experienced loss of civilian health benefits had

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[1]A log-likelihood ratio test was used to compare the model with the mobilization variables with the basic model (Hosmer and Lemeshow, 1989). The test has a chi-square distribution where the null hypothesis is that the additional variables have coefficients equal to zero. For both the 4–6 and 7–12 YOS models, the conclusion is that the additional variables do not improve the model.

Table 5.2

**Retention Probabilities: 4–6 and 7–12 Years of Service,
Mobilized Reservists**

Variable	4–6 YOS	7–12 YOS
Average retention probability[a]	*0.55*	*0.70*
<u>Service-Related Variables</u>		
Nonmedical occupation[b]	*0.55*	*0.70*
Medical occupation	0.50	0.70
Paygrade		
E-3	0.44	—
E-4	0.44*	0.62
E-5[b]	*0.55*	0.70
E-6	—	0.72
E-7/E-9	—	0.81
Component		
Army National Guard	0.46	0.63
Army Reserve[b]	*0.55*	*0.70*
Naval Reserve	0.29*	0.52*
Marine Corps Reserve	0.20*	0.39*
Air National Guard	0.71*	0.81*
Air Force Reserve	0.65	0.75
No prior active service[b]	*0.55*	*0.70*
Prior active service	0.61	0.65
Primary occupation		
General military	0.51	0.72
Technical[b]	*0.55*	*0.70*
Clerical	0.50	0.72
Craftsmen	0.69	0.74
Service and supply	0.53	0.64
Mobilized military income compared to civilian income		
Higher by 20% or more	0.53	0.63
Higher by 10% to 19%	0.58	0.65
Higher by 5% to 9%	0.41	0.73
Less than 5% change/no change[b]	*0.55*	*0.70*
Lower by 5% to 9%	0.36*	0.76
Lower by 10% to 19%	0.44	0.67
Lower by 20% or more	0.40	0.69

Table 5.2 (continued)

Variable	4–6 YOS	7–12 YOS
Conditional probability of being called up in the event of war[c]	*0.55*	*0.70**
Satisfaction with reserve participation		
Very satisfied	0.75*	0.78
Somewhat satisfied	0.62	0.73
Neither[b]	*0.55*	*0.70*
Somewhat dissatisfied	0.34*	0.57
Very dissatisfied	0.25*	0.51*
<u>Demographic and Civilian</u> <u>Employment Variables</u>		
Female	0.48	0.59*
Male[b]	*0.55*	*0.70*
White[b]	*0.55*	*0.70*
Black	0.64	0.77
Hispanic	0.49	0.74
Other	0.58	0.82
Age (years)[c]	*0.55*	*0.70**
High school nongraduate	0.63	0.58
High school graduate[b]	*0.55*	*0.70*
Some college	0.62	0.76
Not married[b]	*0.55*	*0.70*
Married	0.52	0.77
No dependents[b]	*0.55*	*0.70*
One dependent	0.57	0.69
Two or more dependents	0.64	0.61
Spouse not working/no spouse[b]	*0.55*	*0.70*
Spouse working full-time	0.60	0.74
Spouse working part-time	0.38	0.72
Spouse attitude toward reserve participation		
Very favorable	0.56	0.71
Somewhat favorable	0.45	0.75
Neither/no spouse[b]	*0.55*	*0.70*
Somewhat unfavorable	0.31*	0.66
Very unfavorable	0.46	0.52

Table 5.2 (continued)

Variable	4–6 YOS	7–12 YOS
Civilian job		
No job	0.57	0.59
Federal government	0.61	0.78
State government	0.73*	0.62
Local government	0.58	0.71
Private firm[b]	*0.55*	*0.70*
Self-employed	0.40	0.76
Civilian supervisor's attitude toward		
reserve participation		
Very favorable	0.55	0.72
Somewhat favorable	0.63	0.74
Neither/self-employed/no job[b]	*0.55*	*0.70*
Somewhat unfavorable	0.61	0.78
Very unfavorable	0.83*	0.73
Weekly hours on civilian job[c]	*0.55*	*0.70**
Serious problems resulting from		
ODS/S call-up		
Increased family problems	0.54	0.56*
Business or medical practice was		
damaged	0.61	0.64
Lost seniority/promotion opportunity/		
job responsibility on civilian job	0.53	0.71
Lost civilian health benefits during the		
call-up	0.70*	0.73
Had problems with military pay	0.63	0.74
Did not have problems with military pay	*0.55*	*0.70*
Spent 75% or more time working in primary		
MOS	*0.55*	*0.70*
Spent less than 75% of time working in		
primary MOS	0.64	0.74
Deployed overseas	0.56	0.69
Deployed in the United States	*0.55*	*0.70*
Total income loss resulting from call-up		
Did not lose income	*0.55*	*0.70*
Lost $1–$4,999	0.60	0.62
Lost $5,000 or more	0.59	0.69

Table 5.2 (continued)

Variable	4–6 YOS	7–12 YOS
Total additional expenses resulting from call-up		
No expenses	*0.55*	*0.70*
$–$2,499	0.46	0.70
$2,500–$4,999	0.41	0.71
$5,000 or more	0.60	0.66
How much do you think the active force members you worked with valued your contribution to the ODS/S mission?		
1. Very much	0.52	0.73
2.	0.46	0.73
3.	*0.55*	*0.70*
4.	0.60	0.72
5. Not at all	0.54	0.70

*Significant at the 0.05 level.
aOf the reference individual.
bReference characteristic.
cReference value for continuous variables is the mean.

significantly *higher* retention than those who had not. In particular, after controlling for other variables, the presence and magnitude of income loss and additional expenses did not signficantly affect retention.

We compared the results from the unweighted model to those from the weighted model reported in Appendix A. There was little difference between the two with the exception that those with 7–12 years of service who had reported increased family problems did not have significantly lower retention than the typical reservist in the weighted model.

SUMMARY

Although the effects of mobilization in terms of the seriousness and severity of the disruption to family, civilian employers, and the reservists themselves should not be discounted, these effects do not appear to have translated into measurable effects on retention. We find little difference in retention between reservists who experienced economic losses and increased family problems and those who did

not. The ODS/S experience did not have an adverse effect on the
likelihood of remaining in the Reserve Components; indeed, we find
a small and positive effect on retention among those with higher
probabilities of being called up in the event of future mobilizations.

CONCLUSIONS

The analysis had three main objectives:

- The first was to examine whether and how factors affecting reenlistment had changed over time. In particular, we were interested in comparing the results of the previous model of reenlistment (Grissmer, Kirby, and Sze, 1992), which was fit to the 1986 survey data, with those of the current analysis.

- The second objective of the study was to examine differences between the behavior of mobilized and nonmobilized reservists to see whether mobilization had an effect on retention.

- The third objective was to use the rich, experiential data collected from mobilized reservists regarding the effects of mobilization on their work and family environments and their economic position to see whether these had significant effects on retention.

FACTORS AFFECTING RETENTION: WHAT HAS CHANGED SINCE 1986?

One caveat to be kept in mind in comparing our analysis with the earlier model results is that we are measuring retention over a three-year period; the earlier model measured reenlistment over an 18-month period. Even given that, our results largely mirror those found in the reenlistment model fit to the 1986 survey data. The main factors affecting retention are paygrade, component, and attitudinal variables such as satisfaction with the reserves and negative

attitude of the spouse toward reserve duty. The earlier model did not include satisfaction with reserve participation; in our model, this is the most important predictor of retention. We also do not find that favorable attitudes of civilian supervisors have an effect on retention. In fact, as we showed earlier, we find a perverse relationship between supervisor attitude and retention.

EFFECT OF BEING MOBILIZED ON RETENTION

This analysis has provided convincing evidence that being mobilized during ODS/S did not appear to have adversely affected retention. Overall, mobilized reservists had slightly lower retention than non-mobilized reservists, but the difference was not statistically significant, nor was the net effect of being mobilized significant in the regression models. In addition, some evidence indicates that the probability of being mobilized in future call-ups has a small and positive effect on retention, suggesting that reservists welcome the opportunity to put their skills and training into practice in real-world deployments.

EFFECT OF MOBILIZATION-RELATED VARIABLES ON RETENTION

Although a substantial proportion reported having suffered income loss and additional expenses attendant on being mobilized, we find little difference in retention among those who suffered such losses and those who did not. Nor did a number of other problems reported by reservists as being serious have any appreciable effect on retention; these included damage to business practice, loss of promotion opportunity, and loss of civilian health benefits. We do find a lower probability of retention among the more experienced reservists who experienced increased family problems as a result of being mobilized. The Reserve Components need to pay attention to this and extend their current efforts to provide increased support to families when reservists are deployed. Other purely military aspects of mobilization such as being deployed overseas, not working in one's primary specialty, problems with military pay, and active-reserve interaction had no measurable effect on retention. As a whole, this set of variables failed to add to the explanatory power of the models.

CONCLUSIONS AND POLICY IMPLICATIONS

One can be cautiously optimistic that mobilizing the reserves in the future will not have adverse effects on retention and possibly future recruiting.

However, several caveats need to be kept in mind. This study analyzed the effects of a large-scale, popular mobilization that enjoyed a high degree of support from employers and families. The effects of future mobilizations are likely to depend on the mission, length of time that reservists are deployed, and the frequency with which they are called upon to serve. Frequent, small-scale, and perhaps unpopular deployments may have different and perhaps adverse effects on retention. The increasing personnel and operations tempo experienced by the reserve forces in recent months needs to be carefully monitored to mitigate possible adverse consequences on reservists, their families, and employers and on future recruiting and retention. Careful and advance planning, early notice to reservists and employers regarding the timing and length of deployment to the extent possible, shorter rotations,[1] and efforts to involve families and employers in reserve activities by reserve units and to show greater appreciation to them may be of considerable help in this direction.

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[1]Some early evidence from interviews with reservists from the Air Reserve Components suggests that rotations of two to three weeks are manageable and cause the least disruption. These interviews are being conducted as part of the larger project.

LOGISTIC REGRESSION RESULTS: WEIGHTED MODEL

Table A.1

**Means and Standard Deviations of the Analysis Variables:
Weighted Model**

Variable	4–6 YOS		7–12 YOS	
	Mean	S. D.	Mean	S. D.
N	1,310		1,827	
Dependent Variable				
Continued through September 1994	0.42	0.49	0.72	0.45
Service-Related Variables				
Deployed during ODS/S	0.29	0.45	0.28	0.45
Medical occupation	0.13	0.33	0.10	0.30
Paygrade				
E-3	0.10	0.30	—	—
E-4	0.61	0.49	0.24	0.43
E-5	0.29	0.45	0.52	0.50
E-6	—	—	0.21	0.41
E-7/E-9	—	—	0.03	0.17
Component				
Army National Guard	0.25	0.44	0.31	0.46
Army Reserve	0.30	0.46	0.30	0.46
Naval Reserve	0.20	0.40	0.14	0.35
Marine Corps Reserve	0.08	0.27	0.03	0.16
Air National Guard	0.11	0.31	0.12	0.33
Air Force Reserve	0.06	0.25	0.10	0.31

Table A.1 (continued)

Variable	4–6 YOS		7–12 YOS	
	Mean	S. D.	Mean	S. D.
No prior active service[a]	0.66	0.47	0.44	0.50
Prior active service	0.34	0.47	0.56	0.50
Primary occupation				
General military	0.23	0.42	0.23	0.42
Technical	0.26	0.44	0.27	0.44
Clerical	0.14	0.34	0.19	0.39
Craftsmen	0.24	0.43	0.21	0.41
Service and supply	0.13	0.33	0.11	0.31
Mobilized military income compared to civilian income				
Higher by 20% or more	0.15	0.36	0.14	0.34
Higher by 10% to 19%	0.10	0.30	0.08	0.28
Higher by 5% to 9%	0.11	0.31	0.10	0.30
Less than 5% change/no change	0.21	0.41	0.20	0.40
Lower by 5% to 9%	0.11	0.31	0.11	0.32
Lower by 10% to 19%	0.11	0.31	0.12	0.32
Lower by 20% or more	0.21	0.41	0.24	0.43
Conditional probability of being called up in the event of war[b]	0.23	0.23	0.26	0.23
Satisfaction with reserve participation				
Very satisfied	0.42	0.49	0.58	0.50
Somewhat satisfied	0.19	0.39	0.17	0.37
Neither	0.17	0.37	0.13	0.34
Somewhat dissatisfied	0.07	0.26	0.05	0.22
Very dissatisfied	0.15	0.36	0.06	0.23
Demographic and Civilian Employment Variables				
Female	0.17	0.38	0.17	0.37
White	0.75	0.43	0.69	0.46
Black	0.14	0.35	0.21	0.40

Table A.1 (continued)

Variable	4–6 YOS Mean	4–6 YOS S. D.	7–12 YOS Mean	7–12 YOS S. D.
Hispanic	0.06	0.23	0.07	0.26
Other	0.05	0.21	0.03	0.18
Age (years)	26.48	4.52	32.8	5.97
High school nongraduate	0.07	0.25	0.11	0.31
High school graduate	0.79	0.40	0.68	0.46
Some college	0.14	0.35	0.21	0.41
Married	0.34	0.47	0.66	0.47
No dependents	0.62	0.48	0.29	0.45
One dependent	0.21	0.41	0.24	0.43
Two or more dependents	0.17	0.37	0.48	0.50
Spouse not working/no spouse	0.71	0.45	0.51	0.50
Spouse working full-time	0.24	0.43	0.39	0.49
Spouse working part-time	0.04	0.20	0.10	0.30
Spouse attitude toward reserve participation				
Very favorable	0.16	0.36	0.29	0.45
Somewhat favorable	0.12	0.32	0.21	0.41
Neither/no spouse	0.64	0.48	0.42	0.49
Somewhat unfavorable	0.05	0.22	0.06	0.23
Very unfavorable	0.03	0.17	0.02	0.15
Civilian job				
No job	0.24	0.42	0.13	0.33
Federal government	0.06	0.25	0.12	0.32
State government	0.06	0.24	0.10	0.30
Local government	0.05	0.21	0.10	0.30
Private firm	0.53	0.50	0.51	0.50
Self-employed	0.07	0.25	0.05	0.21
Civilian supervisor's attitude toward reserve participation				
Very favorable	0.28	0.45	0.35	0.48
Somewhat favorable	0.18	0.38	0.19	0.39

Table A.1 (continued)

Variable	4–6 YOS		7–12 YOS	
	Mean	S. D.	Mean	S. D.
Neither/self-employed/no job	0.44	0.50	0.35	0.48
Somewhat unfavorable	0.07	0.25	0.09	0.28
Very unfavorable	0.03	0.16	0.02	0.15
Weekly hours on civilian job	30.8	19.3	37.8	15.7

[a]Based on the Congressional definition of prior active service as those with 2 years or more of active service.

[b]Reservists were asked the likelihood of another war requiring a reserve call-up occurring in the next 5 years and the likelihood of being called up if such a mobilization occurred. The variable is the product of those two probabilities.

Table A.2

Regression Results: Weighted Model

Variable	4–6 YOS	7–12 YOS
Average retention probability[a]	*0.26*	*0.60*
Service-Related Variables		
Mobilization status		
Not mobilized during ODS/S[b]	*0.26*	*0.60*
Mobilized during ODS/S	0.29	0.55
Nonmedical occupation[b]	*0.26*	*0.60*
Medical occupation	0.22	0.56
Paygrade		
E-3	0.20	—
E-4	0.19	0.47*
E-5[b]	*0.26*	*0.60*
E-6	—	0.70*
E-7/E-9	—	0.58
Component		
Army National Guard	0.28	0.58
Army Reserve[b]	*0.26*	*0.60*
Naval Reserve	0.20	0.47*
Marine Corps Reserve	0.06*	0.33*
Air National Guard	0.55*	0.78*
Air Force Reserve	0.48*	0.67

Table A.2 (continued)

Variable	4–6 YOS	7–12 YOS
No prior active service[b]	*0.26*	*0.60*
Prior active service	0.20	0.62
Primary occupation		
General military	0.12*	0.52
Technical[b]	*0.26*	*0.60*
Clerical	0.34	0.44*
Craftsmen	0.28	0.59
Service and supply	0.27	0.49
Mobilized military income compared		
to civilian income		
Higher by 20% or more	0.40*	0.58
Higher by 10% to 19%	0.39	0.53
Higher by 5% to 9%	0.31	0.52
Less than 5% change/no change[b]	*0.26*	*0.60*
Lower by 5% to 9%	0.47*	0.56
Lower by 10% to 19%	0.37	0.57
Lower by 20% or more	0.31	0.51
Conditional probability of being called		
up in the event of war[c]	*0.26*	*0.60**
Satisfaction with reserve participation		
Very satisfied	0.58*	0.77*
Somewhat satisfied	0.47*	0.65
Neither[b]	*0.26*	*0.60*
Somewhat dissatisfied	0.25	0.59
Very dissatisfied	0.23	0.45
<u>Demographic and Civilian</u>		
<u>Employment Variables</u>		
Female	0.17	0.58
Male[b]	*0.26*	*0.60*
White[b]	*0.26*	*0.60*
Black	0.29	0.47*
Hispanic	0.29	0.77*
Other	0.28	0.65
Age (years)[c]	0.26	0.60
High school nongraduate	0.25	0.55
High school graduate[b]	*0.26*	*0.60*
Some college	0.30	0.70*

Table A.2 (continued)

Variable	4–6 YOS	7–12 YOS
Not married[b]	*0.26*	*0.60*
Married	0.22	0.70
No dependents[b]	*0.26*	*0.60*
One dependent	0.33	0.67
Two or more dependents	0.35	0.63
Spouse not working/no spouse[b]	*0.26*	*0.60*
Spouse working full-time	0.45*	0.59
Spouse working part-time	0.24	0.64
Spouse attitude toward reserve participation		
Very favorable	0.17	0.66
Somewhat favorable	0.19	0.67
Neither/no spouse[b]	*0.26*	*0.60*
Somewhat unfavorable	0.04*	0.52
Very unfavorable	0.05*	0.46
Civilian job		
No job	0.11*	0.45
Federal government	0.27	0.67
State government	0.36	0.64
Local government	0.37	0.60
Private firm[b]	*0.26*	*0.60*
Self-employed	0.08*	0.89*
Civilian supervisor's attitude toward reserve participation		
Very favorable	0.29	0.59
Somewhat favorable	0.32	0.60
Neither/self-employed/no job[b]	*0.26*	*0.60*
Somewhat unfavorable	0.31	0.65
Very unfavorable	0.38	0.73
Weekly hours on civilian job[c]	*0.26*	*0.60*

*Significant at the 0.05 level.

[a]Of the reference individual.

[b]Reference characteristic.

[c]Reference value for continuous variables is the mean.

Table A.3

Means and Standard Deviations of the Analysis Variables:
Mobilized Reservists, Weighted Model

Variable	4–6 YOS		7–12 YOS	
	Mean	S. D.	Mean	S. D.
N	689		987	
Dependent Variable				
Continued through September 1994	0.42	0.49	0.67	0.47
Service-Related Variables				
Medical occupation	0.21	0.40	0.16	0.36
Paygrade				
E-3	0.09	0.29	—	—
E-4	0.62	0.48	0.25	0.43
E-5	0.29	0.45	0.53	0.50
E-6	—	—	0.20	0.40
E-7/E-9	—	—	0.02	0.15
Component				
Army National Guard	0.20	0.40	0.32	0.47
Army Reserve	0.34	0.47	0.30	0.46
Naval Reserve	0.13	0.33	0.08	0.27
Marine Corps Reserve	0.20	0.40	0.08	0.27
Air National Guard	0.05	0.22	0.07	0.25
Air Force Reserve	0.08	0.27	0.16	0.37
Prior active service[a]	0.30	0.46	0.52	0.50
Primary occupation				
General military	0.19	0.39	0.20	0.40
Technical	0.30	0.46	0.24	0.43
Clerical	0.15	0.35	0.14	0.35
Craftsmen	0.15	0.36	0.17	0.38
Service and supply	0.22	0.41	0.25	0.43
Mobilized military income compared to civilian income				
Higher by 20% or more	0.17	0.38	0.15	0.36
Higher by 10% to 19%	0.12	0.33	0.13	0.33
Higher by 5% to 9%	0.15	0.36	0.15	0.36
Less than 5% change/no change	0.19	0.39	0.19	0.39
Lower by 5% to 9%	0.10	0.30	0.07	0.25
Lower by 10% to 19%	0.13	0.33	0.11	0.31
Lower by 20% or more	0.14	0.35	0.20	0.40

Table A.3 (continued)

	4–6 YOS		7–12 YOS	
Variable	Mean	S. D.	Mean	S. D.
Conditional probability of being called				
up in the event of war[b]	0.28	0.24	0.31	0.28
Satisfaction with reserve participation				
Very satisfied	0.47	0.50	0.59	0.49
Somewhat satisfied	0.20	0.40	0.16	0.37
Neither	0.13	0.33	0.12	0.32
Somewhat dissatisfied	0.07	0.26	0.07	0.26
Very dissatisfied	0.13	0.33	0.06	0.23
Demographic and Civilian				
Employment Variables				
Female	0.19	0.39	0.15	0.35
White	0.71	0.45	0.64	0.48
Black	0.16	0.37	0.26	0.44
Hispanic	0.08	0.27	0.06	0.24
Other	0.05	0.22	0.03	0.17
Age (years)	26.1	3.91	32.1	5.45
High school nongraduate	0.05	0.22	0.13	0.33
High school graduate	0.83	0.38	0.73	0.44
Some college	0.12	0.33	0.14	0.35
Married	0.34	0.47	0.62	0.48
No dependents	0.64	0.48	0.27	0.45
One dependent	0.21	0.41	0.29	0.45
Two or more dependents	0.15	0.35	0.43	0.50
Spouse not working/no spouse	0.70	0.46	0.56	0.50
Spouse working full-time	0.26	0.44	0.36	0.48
Spouse working part-time	0.05	0.21	0.09	0.29
Spouse attitude toward reserve				
participation				
Very favorable	0.13	0.33	0.24	0.43
Somewhat favorable	0.11	0.32	0.21	0.40
Neither/no spouse	0.65	0.48	0.45	0.50
Somewhat unfavorable	0.07	0.25	0.07	0.25
Very unfavorable	0.04	0.20	0.03	0.17

Table A.3 (continued)

	4–6 YOS		7–12 YOS	
Variable	Mean	S. D.	Mean	S. D.
Civilian job				
No job	0.20	0.40	0.17	0.38
Federal government	0.05	0.21	0.11	0.31
State government	0.06	0.24	0.10	0.31
Local government	0.06	0.24	0.10	0.30
Private firm	0.55	0.50	0.48	0.50
Self-employed	0.08	0.27	0.03	0.17
Civilian supervisor's attitude toward				
reserve participation				
Very favorable	0.32	0.47	0.34	0.47
Somewhat favorable	0.15	0.36	0.21	0.40
Neither/self-employed/no job	0.44	0.50	0.37	0.48
Somewhat unfavorable	0.06	0.24	0.06	0.23
Very unfavorable	0.03	0.18	0.03	0.16
Weekly hours on civilian job	32.7	18.9	35.7	16.8
Mobilization-Related Variables				
Serious problems resulting from ODS/S call-up[c]				
Increased family problems	0.20	0.40	0.22	0.41
Business or medical practice was damaged	0.05	0.21	0.06	0.24
Lost seniority/promotion opportunity/ job responsibility on civilian job	0.14	0.35	0.18	0.38
Lost civilian health benefits during the call-up	0.17	0.37	0.25	0.43
Experienced problems with military pay	0.41	0.49	0.43	0.50
Spent 75% or more time working in primary MOS	0.59	0.49	0.70	0.46
Deployed overseas	0.66	0.48	0.62	0.48
Total income loss resulting from call-up				
Did not lose income	0.57	0.50	0.51	0.50
Lost $1–$4,999	0.31	0.46	0.29	0.46
Lost $5,000 or more	0.12	0.33	0.20	0.40
Total expenses resulting from call-up				
No expenses	0.29	0.45	0.26	0.44
$1–$2,499	0.50	0.50	0.44	0.50

Table A.3 (continued)

Variable	4–6 YOS		7–12 YOS	
	Mean	S. D.	Mean	S. D.
$2,500–$4,999	0.15	0.35	0.19	0.39
$5,000 or more	0.06	0.24	0.12	0.32
How much do you think the active force members you worked with valued your contribution to the ODS/S mission?				
1. Very much	0.38	0.49	0.49	0.50
2.	0.16	0.36	0.11	0.31
3.	0.15	0.36	0.15	0.36
4.	0.10	0.30	0.10	0.31
5. Not at all	0.20	0.40	0.13	0.34

[a]Based on the Congressional definition of prior active service as those with 2 years or more of active service.

[b]Reservists were asked the likelihood of another war requiring a reserve call-up occurring in the next 5 years and the likelihood of being called up if such a mobilization occurred.This variable is the product of those two probabilities.

[c]Reservists were asked to rate the seriousness of the problem using a 7-point scale where 1 meant "extremely serious" and 7 "not a problem." The proportions shown here are for those who rated the problem 1, 2, or 3.

Table A.4

Retention Probabilities: 4–6 and 7–12 Years of Service, Mobilized Reservists, Weighted Model

Variable	4–6 YOS	7–12 YOS
Average retention probability[a]	*0.32*	*0.74*
Service-Related Variables		
Nonmedical occupation[b]	*0.32*	*0.74*
Medical occupation	0.42	0.83
Paygrade		
E-3	0.22	—
E-4	0.23	0.59*
E-5[b]	*0.32*	0.74
E-6	—	0.74
E-7/E-9	—	0.90

Table A.4 (continued)

Variable	4–6 YOS	7–12 YOS
Component		
Army National Guard	0.25	0.69
Army Reserve[b]	*0.32*	*0.74*
Naval Reserve	0.16*	0.61
Marine Corps Reserve	0.11*	0.43*
Air National Guard	0.59*	0.85
Air Force Reserve	0.48	0.81
No prior active service[b]	*0.32*	*0.74*
Prior active service	0.42	0.68
Primary occupation		
General military	0.31	0.75
Technical[b]	*0.32*	*0.74*
Clerical	0.42	0.75
Craftsmen	0.63*	0.82
Service and supply	0.39	0.72
Mobilized military income compared		
to civilian income		
Higher by 20% or more	0.32	0.70
Higher by 10% to 19%	0.46	0.57
Higher by 5% to 9%	0.24	0.73
Less than 5% change/no change[b]	*0.32*	*0.74*
Lower by 5% to 9%	0.25	0.66
Lower by 10% to 19%	0.31	0.59
Lower by 20% or more	0.40	0.71
Conditional probability of being		
called up in the event of war[c]	*0.32**	*0.74**
Satisfaction with reserve participation		
Very satisfied	0.54*	0.76
Somewhat satisfied	0.38	0.60
Neither[b]	*0.32*	*0.74*
Somewhat dissatisfied	0.22	0.61
Very dissatisfied	0.09*	0.45*
Demographic and Civilian		
Employment variables		
Female	0.22	0.54*
Male[b]	*0.32*	*0.74*

Table A.4 (continued)

Variable	4–6 YOS	7–12 YOS
White[b]	*0.32*	*0.74*
Black	0.35	0.82
Hispanic	0.27	0.74
Other race	0.40	0.78
Age (years)[c]	*0.32*	*0.74*
High school nongraduate	0.37	0.63
High school graduate[b]	*0.32*	*0.74*
Some college	0.27	0.74
Not married[b]	*0.32*	*0.74*
Married	0.24	0.69
No dependents[b]	*0.32*	*0.74*
One dependent	0.38	0.79
Two or more dependents	0.42	0.82
Spouse not working/no spouse[b]	*0.32*	*0.74*
Spouse working full-time	0.35	0.74
Spouse working part-time	0.22	0.63
Spouse attitude toward reserve participation		
Very favorable	0.29	0.76
Somewhat favorable	0.32	0.83
Neither/no spouse[b]	*0.32*	*0.74*
Somewhat unfavorable	0.09*	0.81
Very unfavorable	0.56	0.68
Civilian job		
No job	0.31	0.75
Federal government	0.37	0.79
State government	0.52*	0.71
Local government	0.35	0.79
Private firm[b]	*0.32*	*0.74*
Self-employed	0.17	0.88
Civilian supervisor's attitude toward reserve participation		
Very favorable	0.36	0.79
Somewhat favorable	0.37	0.80

Table A.4 (continued)

Variable	4–6 YOS	7–12 YOS
Neither/self-employed/no job[b]	*0.32*	*0.74*
Somewhat unfavorable	0.42	0.83
Very unfavorable	0.73*	0.86
Weekly hours on civilian job[c]	*0.32*	*0.74*
Serious problems resulting from ODS/S call-up		
Increased family problems	0.24	0.64
Business or medical practice was damaged	0.33	0.64
Lost seniority/promotion opportunity/ job responsibility on civilian job	0.24	0.72
Lost civilian health benefits during the call-up	0.62*	0.71
Had problems with military pay	0.39	0.74
Did not have problems with military pay	*0.32*	*0.74*
Spent 75% or more time working in primary MOS	*0.32*	*0.74*
Spent less than 75% of time working in primary MOS	0.41	0.80
Deployed overseas	0.38	0.76
Deployed in the United States	*0.32*	*0.74*
Estimate total income loss from all sources resulting from call-up		
Did not lose income	*0.32*	*0.74*
Lost $1–$4,999	0.34	0.69
Lost $5,000 or more	0.26	0.67
Total expenses from resulting from call-up		
No expenses	*0.32*	*0.74*
$1–$2,499	0.25	0.77
$2,500–$4,999	0.20	0.75
$5,000 or more	0.25	0.79

Table A.4 (continued)

Variable	4–6 YOS	7–12 YOS
How much do you think the active force members you worked with valued your contribution to the ODS/S mission?		
1. Very much	0.28	0.77
2.	0.23	0.66
3.	0.32	0.74
4.	0.45	0.80
5. Not at all	0.26	0.82

*Significant at the 0.05 level.

[a]Of the reference individual.

[b]Reference characteristic.

[c]Reference value for continuous variables is the mean.

WEIGHTED VERSUS UNWEIGHTED RESULTS

The results presented in the main body of the report are based on the unweighted data, whereas Appendix A presents the weighted results. Clearly, one would have a lot more confidence in the results if they were consistent across both the weighted and unweighted regressions, but it can be tedious to make such comparisons because of the sheer size and numbers of tables and estimates. As a result, in this appendix, we compare the weighted and unweighted results in terms of direction and significance of the effect of the independent variables on retention probability for both the 4–6 YOS and the 7–12 YOS models. This provides a useful summary of the differences and similarities between the weighted and unweighted models.

There is substantial agreement between the unweighted and weighted results on the directional effect and moderate agreement on significance. Both models confirm that mobilization has had little effect on retention.

Table B.1

Comparison of the Unweighted and Weighted Regression Results: 4–6 and 7–12 Years of Service

Variable	4–6 YOS		7–12 YOS	
	Unweighted	Weighted	Unweighted	Weighted
Average retention probability[a]	*0.43*		*0.68*	
Service-Related Variables				
Mobilized during ODS/S	+	+	−	−
Medical occupation	−	−	−	−
Paygrade				
E-3	−	−	NA	NA
E-4	−*	−	−*	−*
E-6	NA	NA	+	+*
E-7/E-9	NA	NA	+	−
Component				
Army National Guard	−	+	−	−
Naval Reserve	−*	−	−*	−*
Marine Corps Reserve	−*	−*	−*	−*
Air National Guard	+*	+*	+*	+*
Air Force Reserve	+*	+*	+	+
Prior active service	−	−	−	+
Primary occupation				
General military	−	−*	−	−
Clerical	−	+	−	−*
Craftsmen	+	+	+	−
Service and supply	−	+	−	−
Mobilized military income compared to civilian income				
Higher by 20% or more	+	+*	−	−
Higher by 10% to 19%	+	+	−	−
Higher by 5% to 9%	−	+	+	−
Lower by 5% to 9%	−	+*	+	−
Lower by 10% to 19%	+	+	−	−
Lower by 20% or more	−	+	−	−
Conditional probability of being called up in the event of war	+*	+	+	+*

Table B.1 (continued)

Variable	4–6 YOS		7–12 YOS	
	Unweighted	Weighted	Unweighted	Weighted
Satisfaction with reserve participation				
Very satisfied	+*	+*	+*	+*
Somewhat satisfied	+*	+*	+*	+
Somewhat dissatisfied	–	–	–	–
Very dissatisfied	–*	–*	–*	–
Demographic and Civilian Employment Variables				
Female	–*	–	–	–
Black	+*	+	+*	+*
Hispanic	–	+	+	+*
Other	+	+	+	+
Age (years)	+*	+	+*	+*
High school nongraduate	+	–	–	–
Some college	+	+	+*	+*
Married	–	–	+	+
One dependent	+	+	+	+
Two or more dependents	+	+	–	+
Spouse working full-time	+*	+	–	–
Spouse working part-time	–	–	+	+
Spouse attitude toward reserve participation				
Very favorable	–	–	+	+
Somewhat favorable	–	–	+	+
Somewhat unfavorable	–*	–*	–	–
Very unfavorable	–*	–*	–*	–
Civilian job				
No job	–	–*	–	+
Federal government	+	+	+*	+
State government	+*	+	+	+
Local government	+	+	–	+
Self-employed	–*	–*	+	+*

Table B.1 (continued)

Variable	4–6 YOS		7–12 YOS	
	Unweighted	Weighted	Unweighted	Weighted
Civilian supervisor's attitude toward reserve participation				
Very favorable	+	+	+	−
Somewhat favorable	+	+	+	+
Somewhat unfavorable	+	+	+	+
Very unfavorable	+*	+	+	+
Weekly hours on civilian job	−	−	−	+

*Significant at the 0.05 level.

1991 GUARD/RESERVE SURVEY OF OFFICER AND ENLISTED PERSONNEL

Form 1—Mobilized Personnel

I. MILITARY BACKGROUND

1. Of which Reserve Component are you a member?
   Mark one

   ○ Army National Guard
   ○ Army Reserve
   ○ Naval Reserve
   ○ Marine Corps Reserve
   ○ Air National Guard
   ○ Air Force Reserve
   ○ Coast Guard Reserve

2. What is your present pay grade? Mark one

○ O-1	○ W-1	○ E-1
○ O-2	○ W-2	○ E-2
○ O-3	○ W-3	○ E-3
○ O-4	○ W-4	○ E-4
○ O-5		○ E-5
○ O-6		○ E-6
○ O-7 or above		○ E-7
		○ E-8
		○ E-9

3. In what month and year will you complete your current term of service (or extension) in the Guard/Reserve (ETS)?

   ○ Does not apply, do not have a current term of service (GO TO QUESTION 5)

   Month
   ○ January
   ○ February
   ○ March
   ○ April
   ○ May
   ○ June
   ○ July
   ○ August
   ○ September
   ○ October
   ○ November
   ○ December

   Year
   19 ⬚⬚ — Write the numbers in the boxes.

   ⓪⓪
   ①①
   ②②
   ③③
   ④④ — Mark the matching circle below each box.
   ⑤⑤
   ⑥⑥
   ⑦⑦
   ⑧⑧
   ⑨⑨

4. How likely are you to REENLIST OR EXTEND at the end of your current term of service? Assume that all pay which you currently receive is still available. Mark one

   ○ (0 in 10) No chance
   ○ (1 in 10) Very slight possibility
   ○ (2 in 10) Slight possibility
   ○ (3 in 10) Some possibility
   ○ (4 in 10) Fair possibility
   ○ (5 in 10) Fairly good possibility
   ○ (6 in 10) Good possibility
   ○ (7 in 10) Probable
   ○ (8 in 10) Very probable
   ○ (9 in 10) Almost sure
   ○ (10 in 10) Certain

5. How likely are you to <u>stay</u> in the Guard/Reserve until retirement? Assume that all pay which you currently receive is still available. Mark one

   ○ Does not apply; I have already qualified for retired pay
   ○ Does not apply, I do not expect to be given the option of staying
   ○ Does not apply; I am on active duty and will be eligible for active-duty retirement

   ○ (0 in 10) No chance
   ○ (1 in 10) Very slight possibility
   ○ (2 in 10) Slight possibility
   ○ (3 in 10) Some possibility
   ○ (4 in 10) Fair possibility
   ○ (5 in 10) Fairly good possibility
   ○ (6 in 10) Good possibility
   ○ (7 in 10) Probable
   ○ (8 in 10) Very probable
   ○ (9 in 10) Almost sure
   ○ (10 in 10) Certain

6. In the <u>next 12 months</u>, I expect to: Mark one

   ○ Transfer to the Retired Reserve
   ○ Leave the Guard/Reserve (before retiring)
   ○ Transfer to an Active Force
   ○ Transfer to the FTS-AGR/TAR program
   ○ Transfer to a drilling unit
   ○ Transfer to another Guard/Reserve component
   ○ Transfer to Individual Ready Reserve (IRR)/ Inactive National Guard (ING)
   ○ Remain in my current status

7. How **similar** is your current civilian job to your regular (not your mobilization) Guard/Reserve duty?

○ Does not apply, I have no current civilian job
○ Does not apply, I am an Army or Air Force military technician

○ Very similar
○ Somewhat similar
○ Not similar at all

8. Do you work in a medical unit or in the health care field in your Guard/Reserve duty?

○ No (GO TO QUESTION 11)
○ Yes

9. In your military job, are you a:

○ Biomedical scientist
○ Corpsman/Medic/Licensed practical nurse
○ Dentist
○ Diet therapist
○ Environmental health scientist
○ General duty medicine
○ Hospital administrator
○ Medical technologist
○ Optometrist
○ Pharmacist
○ Physical or occupational therapist
○ Physician
○ Podiatrist
○ Psychologist
○ Registered nurse
○ Social worker
○ Technician
○ Veterinarian
○ Other

10. If you are a physician or a registered nurse, what is your special clinical area?

○ Does not apply, not a physician or nurse
○ Does not apply, not a specialist
○ Aviation/Aerospace medicine
○ Allergy and immunology
○ Anesthesiology/Nurse anesthesist
○ Critical care
○ Emergency medicine
○ Executive medicine
○ Dermatology
○ Family practice
○ General medicine
○ Internal medicine
○ Neurology
○ Obstetrics/Gynecology
○ Operating room nurse
○ Opthalmology
○ Otolaryngology
○ Pathology
○ Pediatrics
○ Physical medicine and rehabilitation
○ Preventive medicine
○ Psychiatry
○ Radiology
○ Nuclear medicine
○ General surgery
○ Neurological surgery
○ Orthopedic surgery
○ Plastic surgery
○ Thoracic surgery
○ Urology
○ Other

II. INDIVIDUAL AND FAMILY CHARACTERISTICS

11. Are you male or female?

○ Male
○ Female

12. How old were you on your last birthday?

Age last birthday

⓪	⓪
①	①
②	②
③	③
④	④
⑤	⑤
⑥	⑥
⑦	⑦
⑧	⑧
⑨	⑨

13. Are you:

○ American Indian/Alaskan Native
○ Black/Negro/African-American
○ Oriental/Asian/Chinese/Japanese/Korean/
  Filipino/Pacific Islander
○ White/Caucasian
○ Other

14. Are you of Spanish/Hispanic origin or descent?

○ No (not Spanish/Hispanic)
○ Yes

15. AS OF TODAY, what is the highest school grade or academic degree you have completed? Mark one

○ Less than 12 years of school (no diploma)
○ GED or other high school equivalency certificate
○ High school diploma
○ Some college, but did not graduate
○ 2-year college degree
○ 4-year college degree
○ Some graduate school
○ Masters degree
○ Doctoral degree
○ Other

16. Are you currently:

○ Married for the first time
○ Remarried
○ Widowed (GO TO QUESTION 23)
○ Divorced (GO TO QUESTION 23)
○ Separated (GO TO QUESTION 23)
○ Single, never married (GO TO QUESTION 23)

17. Is your current SPOUSE: Mark ALL that apply

○ In the Armed Forces
○ Working full-time
○ Working part-time
○ With a civilian job but not at work because of
  temporary illness, vacation, strike, etc.
○ Unpaid worker (volunteer or in family business)
○ Unemployed, laid off, looking for work
○ In school
○ Retired
○ A homemaker
○ Other

18. Is your current spouse serving in the Guard/Reserve?

○ No (GO TO QUESTION 20)
○ Yes

19. Was your spouse mobilized/activated/called-up for Operation Desert Shield/Desert Storm? Mark ALL that apply

○ No
○ Yes, deployed to Persian Gulf area
○ Yes, deployed to other overseas location
○ Yes, stayed in our local community
○ Yes, served elsewhere in United States

20. How well do you and your spouse agree on your civilian career plans?

Very Well — Not Well At All
(1)—(2)—(3)—(4)—(5)—(6)—(7)

21. How well do you and your spouse agree on your military career plans?

Very Well — Not Well At All
(1)—(2)—(3)—(4)—(5)—(6)—(7)

22. What is your spouse's overall attitude toward your participation in the Guard/Reserve? Mark one

○ Very favorable
○ Somewhat favorable
○ Neither favorable nor unfavorable
○ Somewhat unfavorable
○ Very unfavorable

23. How many dependents do you currently have in each of the following age groups? For the purpose of this survey, a dependent is anyone for whom you provide more than half of their financial support.
DO NOT include your spouse.

○ Does not apply, I have no dependents
(GO TO QUESTION 24)

Age of dependent	None	1	2	3	4	5
Under 1 year	○	○	○	○	○	○
1 year to under 2 years	○	○	○	○	○	○
2–5 years	○	○	○	○	○	○
6–13 years	○	○	○	○	○	○
14–22 years	○	○	○	○	○	○
23–64 years	○	○	○	○	○	○
65 years or over	○	○	○	○	○	○

Number of Dependents

III   ACTIVATION DURING OPERATION DESERT SHIELD/DESERT STORM

24. Were you mobilized/activated/called-up during Operation Desert Shield/Desert Storm?
Mark ALL that apply

○ No (GO TO QUESTION 81)
○ Yes, deployed to Persian Gulf area
○ Yes, deployed to other overseas location
○ Yes, deployed in the United States
○ Yes, stayed in my local community

25. What month were you mobilized/activated/called-up?

○ August
○ September
○ October
○ November   ○ 1990
○ December
○ January   ○ 1991
○ February
○ March
○ April
○ May
○ June
○ July

26. Are you a single parent or married to another military member?

○ No (GO TO QUESTION 29)
○ Yes, a single parent
○ Yes, married to another military member

27. Do you have a family care plan on file with your unit which specifies how your dependents will be cared for in your absence?

○ Yes
○ No (GO TO QUESTION 29)

28. How satisfied are you with your family care plan?

○ Did not use
○ Satisfied
○ Neither satisfied nor dissatisfied
○ Dissatisfied

29. Who took care of your dependent children during any deployment in the past 12 months?
Mark ALL that apply

○ Does not apply, I was not deployed
   (GO TO QUESTION 31)
○ Does not apply, I had no children living with me
   in the past 12 months (GO TO QUESTION 31)
○ Child took care of him/herself
○ Spouse
○ Ex-spouse
○ Immediate family member (e.g., grandparent,
   brother or sister)
○ Other family member
○ Friend or neighbor
○ Other

30. How satisfied are you with the care your child(ren) received in your absence?

○ Satisfied
○ Neither satisfied nor unsatisfied
○ Dissatisfied

31. Was your initial mobilization/activation/call-up voluntary or involuntary?

○ Voluntary
○ Involuntary

32. Were you a member of a unit prior to your mobilization/activation/call-up?

○ Yes
○ No (GO TO QUESTION 37)

33. How much of a problem is each of the following for your unit in <u>meeting your unit's training objectives</u>?
Please mark the number which shows your opinion on the lines below. For example, people who feel that
an item is <u>Not a Problem</u> would mark 7. People who feel that an item is <u>A Serious Problem</u> would mark 1.
Others may have opinions somewhere between 1 and 7. Mark one for each item.

O Does not apply, am not a member of a unit

	A Serious Problem					Not A Problem		Don't Know
A. Out-of-date equipment/weapons	①	②	③	④	⑤	⑥	⑦	O
B. Poor mechanical condition of equipment/weapons	①	②	③	④	⑤	⑥	⑦	O
C. Being below strength in Grades E-1 — E-4	①	②	③	④	⑤	⑥	⑦	O
D. Being below strength in Grades E-5 — E-9	①	②	③	④	⑤	⑥	⑦	O
E. Not enough staff resources to plan effective training	①	②	③	④	⑤	⑥	⑦	O
F. Low attendance of unit personnel at Unit Drills	①	②	③	④	⑤	⑥	⑦	O
G. Low attendance of unit at Annual Training	①	②	③	④	⑤	⑥	⑦	O
H. Ineffective training during Annual Training	①	②	③	④	⑤	⑥	⑦	O
I. Shortage of MOS/Rating/Specialty qualified personnel	①	②	③	④	⑤	⑥	⑦	O
J. Low quality of personnel in low grade unit drill positions	①	②	③	④	⑤	⑥	⑦	O
K. Not enough drill time to practice skills	①	②	③	④	⑤	⑥	⑦	O
L. Not enough time to plan training objectives and get all administrative paperwork done	①	②	③	④	⑤	⑥	⑦	O
M. Lack of access to good training facilities and grounds	①	②	③	④	⑤	⑥	⑦	O
N. Lack of good instruction manuals and materials	①	②	③	④	⑤	⑥	⑦	O
O. Lack of supplies, such as ammunition, gasoline, etc.	①	②	③	④	⑤	⑥	⑦	O

PLEASE CHECK: HAVE YOU MARKED <u>ONE</u> NUMBER FOR EACH ITEM?

34. Was all of your unit mobilized/activated/called-up?

O Yes, all
O Yes, most
O No (GO TO QUESTION 37)

35. Did you serve with your unit?

O Yes
O No, was assigned to another Reserve unit (GO TO QUESTION 37)
O No, was assigned to an active unit (GO TO QUESTION 37)

36. Was your immediate commander from your Guard/Reserve unit mobilized/activated/called-up?

O Yes and he/she remained my immediate commander
O Yes and he/she served elsewhere
O Yes but I served elsewhere
O No
O Does not apply

37. How well did each of the following prepare you for your mobilization/activation/call-up duty?
Mark one for each item

	Very Well	Well	Fairly Well	Not Well At All
A. Your basic and specialty training	O	O	O	O
B. Your drill weekends	O	O	O	O
C. Your annual training	O	O	O	O

38. How well do you feel you were prepared by your Guard/Reserve training for immediate mobilization?

Very   Not Well
Well   At All
①——②——③——④——⑤——⑥——⑦

39. How much of a problem for you in preparing for deployment were each of the following?

○ Does not apply, was not deployed

	A Serious Problem					Not A Problem		Don't Know
A. Family arrangements	①	②	③	④	⑤	⑥	⑦	○
B. Wills and/or power-of-attorney	①	②	③	④	⑤	⑥	⑦	○
C. Employer arrangements	①	②	③	④	⑤	⑥	⑦	○
D. Landlord arrangements	①	②	③	④	⑤	⑥	⑦	○
E. Banking arrangements	①	②	③	④	⑤	⑥	⑦	○
F. Credit card arrangements	①	②	③	④	⑤	⑥	⑦	○

40. During Operation Desert Shield/Desert Storm, what percentage of your time was spent working in your Primary MOS/Designator/Rating/NEC/Specialty/AFSC?

○ None
○ 1-24%
○ 25-49%
○ 50-74%
○ 75-99%
○ 100% (All)

41. How similar were your mobilization/activation/call-up duties to your Guard/Reserve duties?

○ Very similar
○ Similar
○ Somewhat similar
○ Different
○ Very different

42. How were you personally treated compared to the regular component personnel with respect to:

	Much Better	Better	No Difference	Worse	Much Worse	Don't Know
A. leave?	○	○	○	○	○	○
B. duty assignments?	○	○	○	○	○	○
C. responsibilities?	○	○	○	○	○	○
D. respect for your rank?	○	○	○	○	○	○
E. respect for doing your job?	○	○	○	○	○	○
F. awards?	○	○	○	○	○	○
G. support for your family?	○	○	○	○	○	○
H. getting paid?	○	○	○	○	○	○
I. getting help with personal problems/concerns?	○	○	○	○	○	○

43. Overall, how good a job did the Active Force members you worked with do of each of the following?

	Very Poor Job	Poor Job	Neither Good nor Poor Job	Good Job	Very Good Job	Don't Know or does not apply
A. Using your skills, abilities, and experience	O	O	O	O	O	O
B. Treating you with respect	O	O	O	O	O	O
C. Accepting leadership from Guard/Reserve officers and NCOs	O	O	O	O	O	O
D. Providing leadership for Guard/Reserve members	O	O	O	O	O	O
E. Providing help/information for your personal problems/concerns	O	O	O	O	O	O
F. Understanding how the Guard/Reserve fits into the Total Force	O	O	O	O	O	O
G. Accepting Guard/Reserve members as fully equal members of the Total Force	O	O	O	O	O	O
H. Understanding problems unique to Guard/Reserve members	O	O	O	O	O	O

44. How important do you think your contribution was to the Operation Desert Shield/Desert Storm mission?

Very Important ①——②——③——④——⑤——⑥——⑦ Not Important

45. Overall, how much do you think the Active Force members you worked with valued your contribution to the Operation Desert Shield/Desert Storm mission?

Very Much ①——②——③——④——⑤——⑥——⑦ Not At All

46. Did you use the following military benefits?

	No, Were Not Available	No, Inconvenient to Use	No, Didn't Need Them	Yes
A. Medical benefits	O	O	O	O
B. Dental benefits	O	O	O	O
C. Commissary and exchange privileges	O	O	O	O
D. Family assistance	O	O	O	O
E. Base/post programs	O	O	O	O
F. Other benefits	O	O	O	O

47. Did your family use the following military benefits?

O Does not apply, have no family members eligible for benefits

	No, Were Not Available	No, Inconvenient to Use	No, Didn't Need Them	Yes
A. Medical benefits	O	O	O	O
B. Dental benefits	O	O	O	O
C. Commissary and exchange privileges	O	O	O	O
D. Family assistance	O	O	O	O
E. Base/post programs	O	O	O	O
F. Other benefits	O	O	O	O

48. Did you or your family need help with any of the following during your mobilization/activation/call-up, and was it available? Mark two answers, one for whether you needed help and the other for if it was available.

	Needed Help			Was help available?		
	No, didn't need	Yes, could have used	Yes, really needed	No	Yes	Don't Know
A. Managing finances	O	O	O	O	O	O
B. Finding housing during deployment	O	O	O	O	O	O
C. Understanding your pay and allowances	O	O	O	O	O	O
D. Correcting problems with your pay and allowances	O	O	O	O	O	O
E. Dealing with financial/personal problems that came up after deployment	O	O	O	O	O	O
F. Getting landlord/creditors/etc. to obey the Soldiers' and Sailors' Civil Relief Act	O	O	O	O	O	O

49. How serious a problem was each of the following for you and your family as a result of the Operation Desert Shield/Desert Storm call-up?

	A Serious Problem					Not A Problem		Does Not Apply
A. Employer problems at the beginning of the mobilization/ activation/call-up	①	②	③	④	⑤	⑥	⑦	O
B. Employer problems when you returned to your job	①	②	③	④	⑤	⑥	⑦	O
C. Getting the same job back after returning	①	②	③	④	⑤	⑥	⑦	O
D. Lost civilian health benefits during the call-up	①	②	③	④	⑤	⑥	⑦	O
E. Lost seniority, promotion opportunity or job responsibility on civilian job	①	②	③	④	⑤	⑥	⑦	O
F. Attitudes of supervisor or co-workers upon return	①	②	③	④	⑤	⑥	⑦	O
G. Business or medical practice was damaged	①	②	③	④	⑤	⑥	⑦	O
H. Problems for patients, clients, customers	①	②	③	④	⑤	⑥	⑦	O
I. Spouse needed work and could not find a job	①	②	③	④	⑤	⑥	⑦	O
J. Increased family problems	①	②	③	④	⑤	⑥	⑦	O
K. Increased chances for a marital separation or divorce	①	②	③	④	⑤	⑥	⑦	O
L. Problems for children	①	②	③	④	⑤	⑥	⑦	O
M. Burden on spouse	①	②	③	④	⑤	⑥	⑦	O

PLEASE CHECK: HAVE YOU MARKED ONE NUMBER FOR EACH ITEM?

50. Did you experience problems with your military pay?

O Yes
O No (GO TO QUESTION 52)

51. What kinds of pay problems did you have?
Mark <u>ALL</u> that apply

○ Took too long to get first check
○ Pay was often late
○ Pay was often wrong
○ Didn't receive special pays for which I was entitled
○ Paid at the wrong pay rate for my rank of service
○ Overpaid
○ Did not get leave and earnings statements
○ Did not understand my leave and earnings statements
○ Did not understand what I was supposed to be paid
○ Had problems getting information and help about my pay
○ Other

52. On average, was your military income while you were mobilized/activated/called-up higher or lower than your usual civilian income?

○ Much higher (20 percent or more)
   (GO TO QUESTION 54)
○ Higher (10 to 19 percent)
   (GO TO QUESTION 54)
○ Somewhat higher (5 to 9 percent)
   (GO TO QUESTION 54)
○ About the same (change less than 5 percent)
   (GO TO QUESTION 54)
○ Somewhat lower (5 to 9 percent)
○ Lower (10 to 19 percent)
○ Much lower (20 percent or more)

53. If your military income was lower than your civilian income, how did you make up for the difference in income? Mark <u>ALL</u> that apply

○ Borrowed money
○ Used credit cards
○ Declared bankruptcy
○ Civilian employer made up the difference
○ Family member went to work
○ Family member provided funds
○ Used savings
○ Cut expenses
○ Sold cars or other assets
○ Worked civilian job
○ Other

54. On average, during the Operation Desert Shield/ Desert Storm period, while on active duty, did you continue to work at a civilian job, business or practice?

○ No
○ Yes, 0 to 9 hours a week
○ Yes, 10 to 19 hours a week
○ Yes, 20 to 29 hours a week
○ Yes, 30 hours or more a week

55. Did the following income change as a result of your being mobilized/activated/called-up?

	Yes	No
A. Spouse income declined	○	○
B. Spouse income increased	○	○
C. Income from business or medical practice declined	○	○

56. Please estimate your total income loss from all sources as a result of being mobilized/activated/ called-up. If you have continuing losses from a business or medical practice, include those in your estimate.

○ Did not lose income
○ $1 – $2,499
○ $2,500 – $4,999
○ $5,000 – $9,999
○ $10,000 – $24,999
○ $25,000 – $50,000
○ Over $50,000

57. Did the following expenses change as a result of your being mobilized/activated/called-up?

	Yes	No
A. Medical expenses increased	○	○
B. Child care expenses increased	○	○
C. Mortgage payments declined	○	○
D. Other unexpected expenses	○	○

58. Please estimate your total expenses from all sources as a result of being mobilized/activated/called-up.

○ Did not have any expenses
○ $1 – $2,499
○ $2,500 – $4,999
○ $5,000 – $9,999
○ $10,000 – $24,999
○ $25,000 – $50,000
○ Over $50,000

59. Some have suggested that insurance companies could provide mobilization insurance to pay reservists additional monthly income during a mobilization. Such income would be in addition to your active duty income. If available, would you be interested in buying such insurance to cover losses in income or pay additional expenses when mobilized?

○ Yes
○ Not sure
○ No (GO TO QUESTION 62)

60. If you could buy such insurance through monthly withholding from your reserve paycheck, how much additional monthly income during mobilization would you buy if the monthly costs were as given below.

○ None
○ $100 a month for 40 cents of monthly pay
○ $250 a month for $1 of monthly pay
○ $500 a month for $2 of monthly pay
○ $1,000 a month for $4 of monthly pay
○ $2,000 a month for $8 of monthly pay
○ $5,000 a month for $20 of monthly pay
○ $10,000 a month for $40 of monthly pay
○ $20,000 a month for $80 of monthly pay

61. Suppose the rates were higher as indicated below. How much insurance would you buy?

○ None
○ $100 a month for $1 of monthly pay
○ $250 a month for $2.50 of monthly pay
○ $500 a month for $5 of monthly pay
○ $1,000 a month for $10 of monthly pay
○ $2,000 a month for $20 of monthly pay
○ $5,000 a month for $50 of monthly pay
○ $10,000 a month for $100 of monthly pay
○ $20,000 a month for $200 of monthly pay

62. What were you doing at the time of your being mobilized/activated/called-up? Mark ALL that apply

○ Working full-time as an Army or Air Force military technician
○ Working in a civilian job
○ With a civilian job but not at work because of temporary illness, vacation, strike, etc.
○ Self-employed in own business
○ Unpaid worker (volunteer or in family business)
○ Unemployed, laid off, looking for work
○ In school
○ Retired
○ A homemaker
○ Other

63. Do you feel that your mobilization/activation/call-up caused you to: Mark ALL that apply

○ Lose your job (GO TO QUESTION 69)
○ Does not apply, was not employed (GO TO QUESTION 69)
○ Does not apply, was self-employed (GO TO QUESTION 69)
○ Lose seniority
○ Lose a promotion you expected to get
○ Lose a raise (without promotion) you expected to get
○ Get a raise (without promotion) you had not expected to get
○ Get a promotion you had not expected to get
○ None of the above

64. What do you think your mobilization/activation/ call-up will do to your chances for future promotions or raises with your current employer? Mark ALL that apply

○ Does not apply, expect to change employers
○ Have less chance for future promotions
○ Have less chance for future raises (without promotion)
○ Have more chance for future promotions
○ Have more chance for future raises (without promotion)
○ Have no effect on future raises or promotions

65. Did your employer continue to provide the following benefits during your mobilization/activation/call-up?

	No	Yes, but I had to pay more	Yes, nothing changed	Did not have
A. Life insurance	○	○	○	○
B. Medical insurance	○	○	○	○
C. Dental insurance	○	○	○	○
D. Pension plan	○	○	○	○

66. How much did your employer pay you while you were mobilized/activated/called-up?

○ My full pay
○ About 75 percent of my pay
○ About 50 percent of my pay
○ About 25 percent of my pay
○ About 10 percent of my pay
○ None of my pay

67. How many vacation days did you use while you were mobilized/activated/called-up?

○ None   ○ 11–15 days
○ 1–5 days   ○ 16–20 days
○ 6–10 days   ○ More than 20 days

68. How many sick leave days did you use while you were mobilized/activated/called-up?

○ None   ○ 11–15 days
○ 1–5 days   ○ 16–20 days
○ 6–10 days   ○ More than 20 days

69. If you were attending school when you were mobilized/activated/called-up, what kind of school was it?

○ Does not apply, was not attending school (GO TO QUESTION 72)
○ Vocational, trade, business, or other career training school
○ Junior or community college (two years)
○ Four-year college or university
○ Graduate or professional school
○ Other

70. Were you receiving assistance from any of the following programs? (Mark ALL that apply)

○ Tuition Assistance Program
○ Montgomery GI Bill
○ Veterans Educational Assistance Program (VEAP)
○ Student Loan Repayment Program (SLRP)
○ Reserve Component Health Professional Stipend Program
○ Health Professional Loan Repayment Program
○ State-funded educational benefits for the National Guard
○ Employer provided support
○ Other source of assistance
○ None of the above

71. Did you have any of the following problems?
Mark ALL that apply

○ Could not complete courses
○ Lost tuition (no full or partial refund)
○ Lost future benefits
○ Lost/reduction of scholarship or fellowship
○ Delayed school completion
○ Lost rent deposit or other housing problem
○ Other
○ None of the above — all problems resolved satisfactorily

72. Were you aware of your protections under the Soldiers' and Sailors' Civil Relief Act?

○ Yes, all
○ Yes, some
○ No (GO TO QUESTION 76)

73. How did you become aware of these protections?

○ Advised by the military
○ Family
○ Newspapers
○ Other

74. Did you try to use any of the provisions of the Soldiers' and Sailors' Civil Relief Act?
Mark ALL that apply

○ Yes, requested legal actions be postponed, delayed or reopened later
○ Yes, requested interest charged on loans, mortgage, or credit cards be reduced to 6%
○ Yes, tried to stop the attempt at eviction or repossession of property for my dependents or myself
○ Yes, used other provisions
○ No, could not use provisions (GO TO QUESTION 76)
○ No, did not need the provisions (GO TO QUESTION 76)

75. Did you have problems trying to use the provisions?
Mark ALL that apply

○ No
○ Yes, credit card companies and banks wouldn't cooperate
○ Yes, landlord wouldn't cooperate
○ Yes, assistance from the military was not available
○ Yes, had to pay for my own lawyer
○ Yes, other

76. Have you been deactivated since Operation Desert Shield/Desert Storm?

○ No (GO TO QUESTION 81)
○ Yes

77. What month were you released from active duty?

○ August 1990
○ September 1990
○ October 1990
○ November 1990
○ December 1990
○ January 1991
○ February 1991
○ March 1991
○ April 1991
○ May 1991
○ June 1991
○ July 1991
○ August 1991

78. Did you receive DD Form 214 (Certificate of Release or Discharge from Active Duty) during your deactivation outprocessing?

○ Don't know (GO TO QUESTION 80)
○ Yes (GO TO QUESTION 80)
○ No

79. Have you now received DD Form 214?

○ Yes
○ No

80. Have you or your family needed help with any of the following since your deactivation, and has it been available? Mark two answers, one for whether you needed help and the other for if it was available.

	Needed Help			Was help available?		
	No, didn't need	Yes, could have used	Yes, really needed	No	Yes	Don't Know
A. Managing finances	○	○	○	○	○	○
B. Correcting problems with your pay and allowances	○	○	○	○	○	○
C. Continuing/finishing medical/dental treatment	○	○	○	○	○	○
D. Getting medical/dental treatment for problems caused by deployment	○	○	○	○	○	○
E. Getting individual counseling/services	○	○	○	○	○	○
F. Getting family counseling/services	○	○	○	○	○	○
G. Other (specify_____)	○	○	○	○	○	○

IV · CIVILIAN WORK

81. Are you currently: Mark ALL that apply

○ Full-time in the Armed Forces
○ Working full-time as a Guard/Reserve technician
○ Working in a civilian job
○ With a civilian job but not yet returned from active duty
○ With a civilian job but not at work because of temporary illness, vacation, strike, etc.
○ Self-employed in own business
○ Unpaid worker (volunteer or in family business)
○ Unemployed, laid off, looking for work
○ In school
○ Retired
○ A homemaker
○ Other

82. Which of the following best describes your current civilian employer? Mark one

○ Does not apply, I do not have a civilian job (GO TO QUESTION 96)
○ Federal Government
○ State government
○ Local government (including public schools)
○ Self-employed in own business
○ Private firm
.○ Working without pay in family business or farm

83. How many hours per week do you usually work at this job?

Hours per week

84. How much do you usually earn at this job before deductions? (Include any overtime pay, commission or tips usually received. Please also mark how you are paid.)

$ ☐☐☐☐☐ .00 per   ○ hour
○ week
○ every two weeks
○ bimonth
○ month
○ year

85. Are you currently working at the same job that you were working at prior to your mobilization/activation/call-up?

○ Does not apply, was not mobilized/activated/called-up (GO TO QUESTION 87)
○ Does not apply, was not employed at that time (GO TO QUESTION 87)
○ Yes (GO TO QUESTION 87)
○ No

86. Is your current job better or worse than your job prior to mobilization/activation/call-up?

○ Better
○ About the same as previous job
○ Worse

87. What is your immediate (main) civilian supervisor's overall attitude toward your participation in the Guard/Reserve? Mark one

○ Does not apply, I am self-employed
○ Very favorable
○ Somewhat favorable
○ Neither favorable nor unfavorable
○ Somewhat unfavorable
○ Very unfavorable

88. Which of the following describes how you are paid for the time you take off from your civilian job for regular Guard/Reserve obligations? Do not consider time for mobilization/activation/call-up. Mark ALL that apply

   ○ I receive full civilian pay as well as military pay
   ○ I receive partial civilian pay as well as military pay
   ○ I receive only military pay
   ○ My Guard/Reserve obligations are on days that I normally wouldn't be scheduled to work at my civilian job

89. During the past 12 months, did you have any problems with civilian employment that were related to your Guard/Reserve military obligations?

   ○ No (GO TO QUESTION 92)
   ○ Yes

90. Did you seek help with these problems from any of the following? Mark ALL that apply

   ○ Unit commander
   ○ Legal officer
   ○ National Committee for Employer Support of the Guard and Reserve (NCESGR)
   ○ Local Employer Support of the Guard and Reserve (ESGR) volunteer
   ○ U.S. Department of Labor
   ○ U.S. Office of Personnel Management
   ○ Merit Systems Protection Board
   ○ Labor union/bargaining agent
   ○ State agency
   ○ Local agency
   ○ Other
   ○ None of the above (GO TO QUESTION 92)

91. How satisfied were you with the help that you received?

	Very Dissatisfied	Dissatisfied	Neither Satisfied nor Dissatisfied	Satisfied	Very Satisfied	Did Not Use
A. Unit commander	○	○	○	○	○	○
B. Legal officer	○	○	○	○	○	○
C. National Committee for Employer Support of the Guard and Reserve (NCESGR)	○	○	○	○	○	○
D. Local Employer Support of the Guard and Reserve (ESGR) volunteer	○	○	○	○	○	○
E. U.S. Department of Labor	○	○	○	○	○	○
F. U.S. Office of Personnel Management	○	○	○	○	○	○
G. Merit Systems Protection Board	○	○	○	○	○	○
H. Labor union/bargaining agent	○	○	○	○	○	○
I. State agency	○	○	○	○	○	○
J. Local agency	○	○	○	○	○	○
K. Other	○	○	○	○	○	○

92. Do you work in a health care field in your civilian job?

   ○ No (GO TO QUESTION 96)
   ○ Yes

93. In your civilian job, are you a:

- ○ Biomedical scientist
- ○ Dentist
- ○ Diet therapist
- ○ Environmental health scientist
- ○ General duty medical person
- ○ Hospital administrator
- ○ Medic/Licensed practical nurse
- ○ Medical technologist
- ○ Optometrist
- ○ Pharmacist
- ○ Physical and occupational therapist
- ○ Physician
- ○ Podiatrist
- ○ Psychologist
- ○ Registered nurse
- ○ Social worker
- ○ Technician
- ○ Veterinarian
- ○ Other

94. If you are a physician or a registered nurse, what is your special clinical area?

- ○ Does not apply, not a physician or nurse
- ○ Does not apply, not a specialist
- ○ Anesthesiology/Nurse anesthesist
- ○ Aviation/Aerospace medicine
- ○ Allergy and immunology
- ○ Critical care
- ○ Emergency medicine
- ○ Executive medicine
- ○ Dermatology
- ○ Family practice
- ○ General medicine
- ○ Internal medicine
- ○ Neurology
- ○ Obstetrics/Gynecology
- ○ Operating room nurse
- ○ Opthalmology
- ○ Otolaryngology
- ○ Pathology
- ○ Pediatrics
- ○ Physical medicine and rehabilitation
- ○ Preventive medicine
- ○ Psychiatry
- ○ Radiology
- ○ Nuclear medicine
- ○ General surgery
- ○ Neurological surgery
- ○ Orthopedic surgery
- ○ Plastic surgery
- ○ Thoracic surgery
- ○ Urology
- ○ Other

95. In what type of health care facility do you work?
Mark **ALL** that apply

- ○ Does not apply, do not work in health care facility
- ○ VA Hospital
- ○ Military Hospital
- ○ Other Hospital
- ○ Private practice
- ○ Employed by HMO or other salary-paying employer
- ○ Other

96. In the past 12 months, how much did you and/or your spouse receive from all income sources? Include your own and your spouse's earnings and Guard/Reserve income, interest and dividends, pensions, public welfare or assistance and any other income sources.

○ $1,000,000 or more

Ⅴ MILITARY LIFE

97. How likely is it that another war requiring a reserve call-up will occur in the next 5 years?

○ (0 in 10) No chance
○ (1 in 10) Very slight possibility
○ (2 in 10) Slight possibility
○ (3 in 10) Some possibility
○ (4 in 10) Fair possibility
○ (5 in 10) Fairly good possibility
○ (6 in 10) Good possibility
○ (7 in 10) Probable
○ (8 in 10) Very probable
○ (9 in 10) Almost sure
○ (10 in 10) Certain

98. How likely is it that you would be called-up if such a mobilization occurred?

○ (0 in 10) No chance
○ (1 in 10) Very slight possibility
○ (2 in 10) Slight possibility
○ (3 in 10) Some possibility
○ (4 in 10) Fair possibility
○ (5 in 10) Fairly good possibility
○ (6 in 10) Good possibility
○ (7 in 10) Probable
○ (8 in 10) Very probable
○ (9 in 10) Almost sure
○ (10 in 10) Certain

99. How likely are you to serve with your unit if you are called-up in the future?

○ Does not apply, do not belong to a unit

○ (0 in 10) No chance
○ (1 in 10) Very slight possibility
○ (2 in 10) Slight possibility
○ (3 in 10) Some possibility
○ (4 in 10) Fair possibility
○ (5 in 10) Fairly good possibility
○ (6 in 10) Good possibility
○ (7 in 10) Probable
○ (8 in 10) Very probable
○ (9 in 10) Almost sure
○ (10 in 10) Certain

100. How much do you agree or disagree with the following statements?

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
A. I never really thought the Guard/Reserve would be mobilized/activated/called-up.	O	O	O	O	O
B. I have changed my plans for a career in the Guard/Reserves due to Operation Desert Shield/Desert Storm.	O	O	O	O	O
C. I was proud to serve in the Guard/Reserve during Operation Desert Shield/Desert Storm.	O	O	O	O	O
D. I am concerned about telling a new employer about my Guard/Reserve duty.	O	O	O	O	O
E. My family wants me to leave the Guard/Reserve.	O	O	O	O	O
F. I am concerned about how Guard/Reserve duty will affect my family.	O	O	O	O	O

101. Overall, how satisfied are you with the pay and benefits you receive for the amount of time you spend on Guard/Reserve activities?

Very Dissatisfied ①—②—③—④—⑤—⑥—⑦ Very Satisfied

102. Overall, how satisfied are you with your participation in the Guard/Reserve?

Very Dissatisfied ①—②—③—④—⑤—⑥—⑦ Very Satisfied

103. We're interested in any comments you'd like to make about Guard/Reserve personnel policies — whether or not the topic was covered on this survey.

Do you have any comments?

O No
O Yes — (Please fill out a Comment Sheet and enclose it with your questionnaire.)

Form 2—Nonmobilized Personnel

I MILITARY BACKGROUND

1. Of which Reserve Component are you a member?
Mark one

○ Army National Guard
○ Army Reserve
○ Naval Reserve
○ Marine Corps Reserve
○ Air National Guard
○ Air Force Reserve
○ Coast Guard Reserve

2. What is your present pay grade? Mark one

○ O-1   ○ W-1   ○ E-1
○ O-2   ○ W-2   ○ E-2
○ O-3   ○ W-3   ○ E-3
○ O-4   ○ W-4   ○ E-4
○ O-5   ○ E-5
○ O-6   ○ E-6
○ O-7 or above   ○ E-7
                     ○ E-8
                     ○ E-9

3. In what month and year will you complete your
current term of service (or extension) in the
Guard/Reserve (ETS)?

○ Does not apply, do not have a current term
of service (GO TO QUESTION 5)

Month   Year
○ January   19 [ ][ ] — Write the numbers
○ February   in the boxes.
○ March   ⓪ ⓪   — Mark the matching
○ April   ① ①   circle below
○ May   ② ②   each box.
○ June   ③ ③
○ July   ④ ④
○ August   ⑤ ⑤
○ September   ⑥ ⑥
○ October   ⑦ ⑦
○ November   ⑧ ⑧
○ December   ⑨ ⑨

4. How likely are you to REENLIST OR EXTEND at the
end of your current term of service? Assume that all
pay which you currently receive is still available.
Mark one

○ (0 in 10) No chance
○ (1 in 10) Very slight possibility
○ (2 in 10) Slight possibility
○ (3 in 10) Some possibility
○ (4 in 10) Fair possibility
○ (5 in 10) Fairly good possibility
○ (6 in 10) Good possibility
○ (7 in 10) Probable
○ (8 in 10) Very probable
○ (9 in 10) Almost sure
○ (10 in 10) Certain

5. How likely are you to stay in the Guard/Reserve
until retirement? Assume that all pay which you
currently receive is still available. Mark one

○ Does not apply; I have already qualified for retired
pay
○ Does not apply, I do not expect to be given the
option of staying
○ Does not apply; I am on active duty and will be
eligible for active-duty retirement

○ (0 in 10) No chance
○ (1 in 10) Very slight possibility
○ (2 in 10) Slight possibility
○ (3 in 10) Some possibility
○ (4 in 10) Fair possibility
○ (5 in 10) Fairly good possibility
○ (6 in 10) Good possibility
○ (7 in 10) Probable
○ (8 in 10) Very probable
○ (9 in 10) Almost sure
○ (10 in 10) Certain

6. In the next 12 months, I expect to: Mark one

○ Transfer to the Retired Reserve
○ Leave the Guard/Reserve (before retiring)
○ Transfer to an Active Force
○ Transfer to the FTS-AGR/TAR program
○ Transfer to a drilling unit
○ Transfer to another Guard/Reserve component
○ Transfer to Individual Ready Reserve (IRR)/
Inactive National Guard (ING)
○ Remain in my current status

7. How similar is your current civilian job to your regular (not your mobilization) Guard/Reserve duty?

○ Does not apply, I have no current civilian job
○ Does not apply, I am an Army or Air Force military technician

○ Very similar
○ Somewhat similar
○ Not similar at all

8. Do you work in a medical unit or in the health care field in your Guard/Reserve duty?

○ No (GO TO QUESTION 11)
○ Yes

9. In your military job, are you a:

○ Biomedical scientist
○ Corpsman/Medic/Licensed practical nurse
○ Dentist
○ Diet therapist
○ Environmental health scientist
○ General duty medicine
○ Hospital administrator
○ Medical technologist
○ Optometrist
○ Pharmacist
○ Physical or occupational therapist
○ Physician
○ Podiatrist
○ Psychologist
○ Registered nurse
○ Social worker
○ Technician
○ Veterinarian
○ Other

10. If you are a physician or a registered nurse, what is your special clinical area?

○ Does not apply, not a physician or nurse
○ Does not apply, not a specialist
○ Aviation/Aerospace medicine
○ Allergy and immunology
○ Anesthesiology/Nurse anesthesist
○ Critical care
○ Emergency medicine
○ Executive medicine
○ Dermatology
○ Family practice
○ General medicine
○ Internal medicine
○ Neurology
○ Obstetrics/Gynecology
○ Operating room nurse
○ Opthalmology
○ Otolaryngology
○ Pathology
○ Pediatrics
○ Physical medicine and rehabilitation
○ Preventive medicine
○ Psychiatry
○ Radiology
○ Nuclear medicine
○ General surgery
○ Neurological surgery
○ Orthopedic surgery
○ Plastic surgery
○ Thoracic surgery
○ Urology
○ Other

ⅠⅠ INDIVIDUAL AND FAMILY CHARACTERISTICS

11. Are you male or female?

○ Male
○ Female

12. How old were you on your last birthday?

Age last birthday

```
  ⓪ ⓪
  ① ①
  ② ②
  ③ ③
  ④ ④
  ⑤ ⑤
  ⑥ ⑥
  ⑦ ⑦
  ⑧ ⑧
  ⑨ ⑨
```

13. Are you:

○ American Indian/Alaskan Native
○ Black/Negro/African-American
○ Oriental/Asian/Chinese/Japanese/Korean/
   Filipino/Pacific Islander
○ White/Caucasian
○ Other

14. Are you of Spanish/Hispanic origin or descent?

○ No (not Spanish/Hispanic)
○ Yes

15. AS OF TODAY, what is the highest school grade or academic degree you have completed? Mark one

○ Less than 12 years of school (no diploma)
○ GED or other high school equivalency certificate
○ High school diploma
○ Some college, but did not graduate
○ 2-year college degree
○ 4-year college degree
○ Some graduate school
○ Masters degree
○ Doctoral degree
○ Other

16. If you are currently attending school, what kind of school is it?

○ Does not apply, am not attending school
   (GO TO QUESTION 19)
○ Vocational, trade, business, or other career
   training school
○ Junior or community college (two years)
○ Four-year college or university
○ Graduate or professional school
○ Other

17. Are you receiving assistance from any of the following programs?

○ Tuition Assistance Program
○ Montgomery GI Bill
○ Veterans Educational Assistance Program (VEAP)
○ Student Loan Repayment Program (SLRP)
○ Reserve Component Health Professional Stipend
   Program
○ Health Professional Loan Repayment Program
○ State-funded educational benefits for the National
   Guard
○ Employer provided support
○ Other source of assistance
○ None of the above

18. How supportive of your participation in the Guard/Reserve is your school?

○ Supportive
○ Neither supportive nor unsupportive
○ Unsupportive

19. Are you currently:

○ Married for the first time
○ Remarried
○ Widowed (GO TO QUESTION 26)
○ Divorced (GO TO QUESTION 26)
○ Separated (GO TO QUESTION 26)
○ Single, never married (GO TO QUESTION 26)

20. Is your current SPOUSE: Mark ALL that apply

○ In the Armed Forces
○ Working full-time
○ Working part-time
○ With a civilian job but not at work because of temporary illness, vacation, strike, etc.
○ Unpaid worker (volunteer or in family business)
○ Unemployed, laid off, looking for work
○ In school
○ Retired
○ A homemaker
○ Other

21. Is your current spouse serving in the Guard/Reserve?

○ No (GO TO QUESTION 23)
○ Yes

22. Was your spouse mobilized/activated/called-up for Operation Desert Shield/Desert Storm? Mark ALL that apply

○ No
○ Yes, deployed to Persian Gulf area
○ Yes, deployed to other overseas location
○ Yes, stayed in our local community
○ Yes, served elsewhere in United States

23. How well do you and your spouse agree on your civilian career plans?

Very Well					Not Well At All
①—②—③—④—⑤—⑥—⑦					

24. How well do you and your spouse agree on your military career plans?

Very Well					Not Well At All
①—②—③—④—⑤—⑥—⑦					

25. What is your spouse's overall attitude toward your participation in the Guard/Reserve? Mark one

○ Very favorable
○ Somewhat favorable
○ Neither favorable nor unfavorable
○ Somewhat unfavorable
○ Very unfavorable

26. How many dependents do you currently have in each of the following age groups? For the purpose of this survey, a dependent is anyone for whom you provide more than half of their financial support. DO NOT include your spouse.

○ Does not apply, I have no dependents (GO TO QUESTION 29)

Age of dependent	Number of Dependents					
	None	1	2	3	4	5
Under 1 year	○	○	○	○	○	○
1 year to under 2 years	○	○	○	○	○	○
2-5 years	○	○	○	○	○	○
6-13 years	○	○	○	○	○	○
14-22 years	○	○	○	○	○	○
23-64 years	○	○	○	○	○	○
65 years or over	○	○	○	○	○	○

27. Are you a single parent or married to another military member?

○ No (GO TO QUESTION 30)
○ Yes, a single parent
○ Yes, married to another military member

28. Do you have a family care plan on file with your unit which specifies how your dependents will be cared for in your absence?

○ Yes
○ No (GO TO QUESTION 30)

29. Do you think your plan would work if you were called-up?

○ Yes
○ No
○ Don't know

III   ACTIVATION DURING OPERATION DESERT SHIELD/DESERT STORM

30. Were any members of your Guard/Reserve unit mobilized/activated/called-up?

   ○ Does not apply — I am not a member of a unit (GO TO QUESTION 34)
   ○ Yes, some
   ○ Yes, most
   ○ Yes, all
   ○ No (GO TO QUESTION 32)

31. Why weren't you mobilized/activated/called-up?

   ○ Don't know
   ○ My unit wasn't called
   ○ Hadn't completed my training
   ○ Was pregnant
   ○ Had a medical problem
   ○ Didn't need people in my specialty
   ○ Other

32. How much of a problem is each of the following for your unit in <u>meeting your unit's training objectives</u>?
Please mark the number which shows your opinion on the lines below. For example, people who feel that
an item is <u>Not a Problem</u> would mark 7. People who feel that an item is <u>A Serious Problem</u> would mark 1.
Others may have opinions somewhere between 1 and 7. Mark one for each item.

   ○ Does not apply, am not a member of a unit

	A Serious Problem					Not A Problem		Don't Know
A. Out-of-date equipment/weapons	①	②	③	④	⑤	⑥	⑦	○
B. Poor mechanical condition of equipment/weapons	①	②	③	④	⑤	⑥	⑦	○
C. Being below strength in Grades E-1 — E-4	①	②	③	④	⑤	⑥	⑦	○
D. Being below strength in Grades E-5 — E-9	①	②	③	④	⑤	⑥	⑦	○
E. Not enough staff resources to plan effective training	①	②	③	④	⑤	⑥	⑦	○
F. Low attendance of unit personnel at Unit Drills	①	②	③	④	⑤	⑥	⑦	○
G. Low attendance of unit at Annual Training	①	②	③	④	⑤	⑥	⑦	○
H. Ineffective training during Annual Training	①	②	③	④	⑤	⑥	⑦	○
I. Shortage of MOS/Rating/Specialty qualified personnel	①	②	③	④	⑤	⑥	⑦	○
J. Low quality of personnel in low grade unit drill positions	①	②	③	④	⑤	⑥	⑦	○
K. Not enough drill time to practice skills	①	②	③	④	⑤	⑥	⑦	○
L. Not enough time to plan training objectives and get all administrative paperwork done	①	②	③	④	⑤	⑥	⑦	○
M. Lack of access to good training facilities and grounds	①	②	③	④	⑤	⑥	⑦	○
N. Lack of good instruction manuals and materials	①	②	③	④	⑤	⑥	⑦	○
O. Lack of supplies, such as ammunication, gasoline, etc.	①	②	③	④	⑤	⑥	⑦	○

PLEASE CHECK: HAVE YOU MARKED <u>ONE</u> NUMBER FOR EACH ITEM?

33. Did you volunteer to be mobilized/activated/called-up?

   ○ Yes
   ○ No

34. Were you mobilized/activated/called-up during Operation Desert Shield/Desert Storm?
Mark ALL that apply

○ No
○ Yes, deployed to Persian Gulf area
(GO TO QUESTION 42)
○ Yes, deployed to other overseas location
(GO TO QUESTION 42)
○ Yes, stayed in my local community
(GO TO QUESTION 42)
○ Yes, served elsewhere in the United States
(GO TO QUESTION 42)

35. How important do you think the Guard/Reserve contribution was to the Desert Shield/Desert Storm mission?

Very Important ①—②—③—④—⑤—⑥—⑦ Not Important
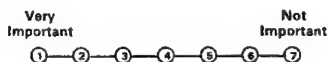
36. If you had been called-up, do you think your military income would have been higher or lower than your usual civilian income?

○ Much higher (20 percent or more)
(GO TO QUESTION 38)
○ Higher (10 to 19 percent) (GO TO QUESTION 38)
○ Somewhat higher (5 to 9 percent)
(GO TO QUESTION 38)
○ About the same (change less than 5 percent)
(GO TO QUESTION 38)
○ Somewhat lower (5 to 9 percent)
○ Lower (10 to 19 percent)
○ Much lower (20 percent or more)
○ Don't know

37. If you think your military income would have been lower than your civilian income, how would you have made up for the difference in income?
Mark ALL that apply

○ Borrowed money
○ Used credit cards
○ Declared bankruptcy
○ Civilian employer would have made up the difference
○ Family member would have worked
○ Family member would have provided funds
○ Used savings
○ Cut expenses
○ Sold cars or other assets
○ Worked at a civilian job
○ Don't know

38. Some have suggested that insurance companies could provide mobilization insurance to pay reservists additional monthly income during a mobilization. Such income would be in addition to your active duty income. If available, would you be interested in buying such insurance to cover losses in income or pay additional expenses when mobilized?

○ Yes
○ Not sure
○ No (GO TO QUESTION 41)

39. If you could buy such insurance through monthly withholding from your reserve paycheck, how much additional monthly income during mobilization would you buy if the monthly costs were as given below.

○ None
○ $100 a month for 40 cents of monthly pay
○ $250 a month for $1 of monthly pay
○ $500 a month for $2 of monthly pay
○ $1,000 a month for $4 of monthly pay
○ $2,000 a month for $8 of monthly pay
○ $5,000 a month for $20 of monthly pay
○ $10,000 a month for $40 of monthly pay
○ $20,000 a month for $80 of monthly pay

40. Suppose the rates were higher as indicated below. How much insurance would you buy?

○ None
○ $100 a month for $1 of monthly pay
○ $250 a month for $2.50 of monthly pay
○ $500 a month for $5 of monthly pay
○ $1,000 a month for $10 of monthly pay
○ $2,000 a month for $20 of monthly pay
○ $5,000 a month for $50 of monthly pay
○ $10,000 a month for $100 of monthly pay
○ $20,000 a month for $200 of monthly pay

41. Are you aware of your protections under the Soldiers' and Sailors' Civil Relief Act?

○ Yes, all
○ Yes, some
○ No
○ Don't know

IV CIVILIAN WORK

42. Are you currently: Mark ALL that apply

- ○ Full-time in the Armed Forces
- ○ Working full-time as a Guard/Reserve technician
- ○ Working in a civilian job
- ○ With a civilian job but not yet returned from active duty
- ○ With a civilian job but not at work because of temporary illness, vacation, strike, etc.
- ○ Self-employed in own business
- ○ Unpaid worker (volunteer or in family business)
- ○ Unemployed, laid off, looking for work
- ○ In school
- ○ Retired
- ○ A homemaker
- ○ Other

43. Which of the following best describes your current civilian employer? Mark one

- ○ Does not apply, I do not have a civilian job (GO TO QUESTION 54)
- ○ Federal Government
- ○ State government
- ○ Local government (including public schools)
- ○ Self-employed in own business
- ○ Private firm
- ○ Working without pay in family business or farm

44. How many hours per week do you usually work at this job?

Hours per week

45. How much do you usually earn at this job before deductions? (Include any overtime pay, commission or tips usually received. Please also mark how you are paid.)

$ [ ][ ][ ][ ] .00 per

- ○ hour
- ○ week
- ○ every two weeks
- ○ bimonth
- ○ month
- ○ year

46. Are you currently working at the same job that you were working at before August 1990 (the beginning of Operation Desert Shield)?

- ○ Does not apply, was not employed before August 1990 (GO TO QUESTION 48)
- ○ Yes (GO TO QUESTION 48)
- ○ No

47. Is your current job better or worse than your job before August 1990?

- ○ Better
- ○ About the same as previous job
- ○ Worse

48. What is your immediate (main) civilian supervisor's overall attitude toward your participation in the Guard/Reserve? Mark one

- ○ Does not apply, I am self-employed
- ○ Very favorable
- ○ Somewhat favorable
- ○ Neither favorable nor unfavorable
- ○ Somewhat unfavorable
- ○ Very unfavorable

49. Which of the following describes how you are paid for the time you take from your civilian job for Guard/Reserve obligations? Mark ALL that apply

○ I receive full civilian pay as well as military pay
○ I receive partial civilian pay as well as military pay
○ I receive only military pay
○ My Guard/Reserve obligations are on days that I normally wouldn't be scheduled to work at my civilian job

50. Do you work in a health care field in your civilian job?

○ No (GO TO QUESTION 54)
○ Yes

51. In your civilian job, are you a:

○ Biomedical scientist
○ Dentist
○ Diet therapist
○ Environmental health scientist
○ General duty medical person
○ Hospital administrator
○ Medic/Licensed practical nurse
○ Medical technologist
○ Optometrist
○ Pharmacist
○ Physical and occupational therapist
○ Physician
○ Podiatrist
○ Psychologist
○ Registered nurse
○ Social worker
○ Technician
○ Veterinarian
○ Other

52. If you are a physician or registered nurse, what is your special area?

○ Does not apply, not a physician or nurse
○ Does not apply, not a specialist
○ Anesthesiology/Nurse anesthesist
○ Aviation/Aerospace medicine
○ Allergy and immunology
○ Critical care
○ Emergency medicine
○ Executive medicine
○ Dermatology
○ Family practice
○ General medicine
○ Internal medicine

52. Continued

○ Neurology
○ Obstetrics/Gynecology
○ Operating room nurse
○ Opthalmology
○ Otolaryngology
○ Pathology
○ Pediatrics
○ Physical medicine and rehabilitation
○ Preventive medicine
○ Psychiatry
○ Radiology
○ Nuclear medicine
○ General surgery
○ Neurological surgery
○ Orthopedic surgery
○ Plastic surgery
○ Thoracic surgery
○ Urology
○ Other

53. In what type of health care facility do you work? Mark ALL that apply

○ Does not apply, do not work in health care facility
○ VA Hospital
○ Military Hospital
○ Other Hospital
○ Private practice
○ Employed by HMO or other salary-paying employer
○ Other

54. In the past 12 months, how much did you and/or your spouse receive from all income sources? Include your own and your spouse's earnings and Guard/Reserve income, interest and dividends, pensions, public welfare or assistance and any other income sources.

$ ▢▢▢▢▢▢

○ $1,000,000 or more

V. MILITARY LIFE

55. How likely is it that another war requiring a reserve call-up will occur in the next 5 years?

- ○ (0 in 10) No chance
- ○ (1 in 10) Very slight possibility
- ○ (2 in 10) Slight possibility
- ○ (3 in 10) Some possibility
- ○ (4 in 10) Fair possibility
- ○ (5 in 10) Fairly good possibility
- ○ (6 in 10) Good possibility
- ○ (7 in 10) Probable
- ○ (8 in 10) Very probable
- ○ (9 in 10) Almost sure
- ○ (10 in 10) Certain

56. How likely is it that you would be called-up if such a mobilization occurred?

- ○ (0 in 10) No chance
- ○ (1 in 10) Very slight possibility
- ○ (2 in 10) Slight possibility
- ○ (3 in 10) Some possibility
- ○ (4 in 10) Fair possibility
- ○ (5 in 10) Fairly good possibility
- ○ (6 in 10) Good possibility
- ○ (7 in 10) Probable
- ○ (8 in 10) Very probable
- ○ (9 in 10) Almost sure
- ○ (10 in 10) Certain

57. How likely are you to serve with your unit if you are called-up in the future?

○ Does not apply, do not belong to a unit

- ○ (0 in 10) No chance
- ○ (1 in 10) Very slight possibility
- ○ (2 in 10) Slight possibility
- ○ (3 in 10) Some possibility
- ○ (4 in 10) Fair possibility
- ○ (5 in 10) Fairly good possibility
- ○ (6 in 10) Good possibility
- ○ (7 in 10) Probable
- ○ (8 in 10) Very probable
- ○ (9 in 10) Almost sure
- ○ (10 in 10) Certain

58. If you were called up, how much of a problem would each of the following be for you or your family as a result of the call-up?

	A Serious Problem					Not A Problem		Don't Know
A. Employer problems at the beginning of the mobilization/ activation/call-up	①	②	③	④	⑤	⑥	⑦	○
B. Employer problems when you returned to your job	①	②	③	④	⑤	⑥	⑦	○
C. Getting the same job back after returning	①	②	③	④	⑤	⑥	⑦	○
D. Lost civilian health benefits during the call-up	①	②	③	④	⑤	⑥	⑦	○
E. Lost seniority, promotion opportunity or job responsibility on civilian job	①	②	③	④	⑤	⑥	⑦	○
F. Lost income during the call-up	①	②	③	④	⑤	⑥	⑦	○
G. Attitudes of supervisor or coworkers upon return	①	②	③	④	⑤	⑥	⑦	○
H. Business or medical practice would be damaged	①	②	③	④	⑤	⑥	⑦	○
I. Problems for patients, clients, customers	①	②	③	④	⑤	⑥	⑦	○
J. Spouse needed work and could not find a job	①	②	③	④	⑤	⑥	⑦	○
K. Increased family problems	①	②	③	④	⑤	⑥	⑦	○
L. Increased chances for a marital separation or divorce	①	②	③	④	⑤	⑥	⑦	○
M. Problems for children	①	②	③	④	⑤	⑥	⑦	○
N. Burden on spouse	①	②	③	④	⑤	⑥	⑦	○
O. Child care during the call-up	①	②	③	④	⑤	⑥	⑦	○

PLEASE CHECK: HAVE YOU MARKED ONE NUMBER FOR EACH ITEM?

59. How much do you agree or disagree with the following statements?

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
A. I never really thought the Guard/Reserve would be mobilized/activated/called up.	O	O	O	O	O
B. I have changed my plans for a career in the Guard/ Reserves due to Operation Desert Shield/Desert Storm.	O	O	O	O	O
C. I was proud to serve in the Guard/Reserve during Operation Desert Shield/Desert Storm.	O	O	O	O	O
D. I am concerned about telling a new employer about my Guard/Reserve duty.	O	O	O	O	O
E. My family wants me to leave the Guard/Reserve.	O	O	O	O	O
F. I am concerned about how Guard/Reserve duty will affect my family.	O	O	O	O	O

60. Overall, how satisfied are you with the pay and benefits you receive for the amount of time you spend on Guard/Reserve activities?

Very Dissatisfied ①—②—③—④—⑤—⑥—⑦ Very Satisfied

61. Overall, how satisfied are you with your participation in the Guard/Reserve?

Very Dissatisfied ①—②—③—④—⑤—⑥—⑦ Very Satisfied

62. We're interested in any comments you'd like to make about Guard/Reserve personnel policies — whether or not the topic was covered on this survey.

Do you have any comments?

O No
O Yes — (Please fill out a Comment Sheet and enclose it with your questionnaire.)

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